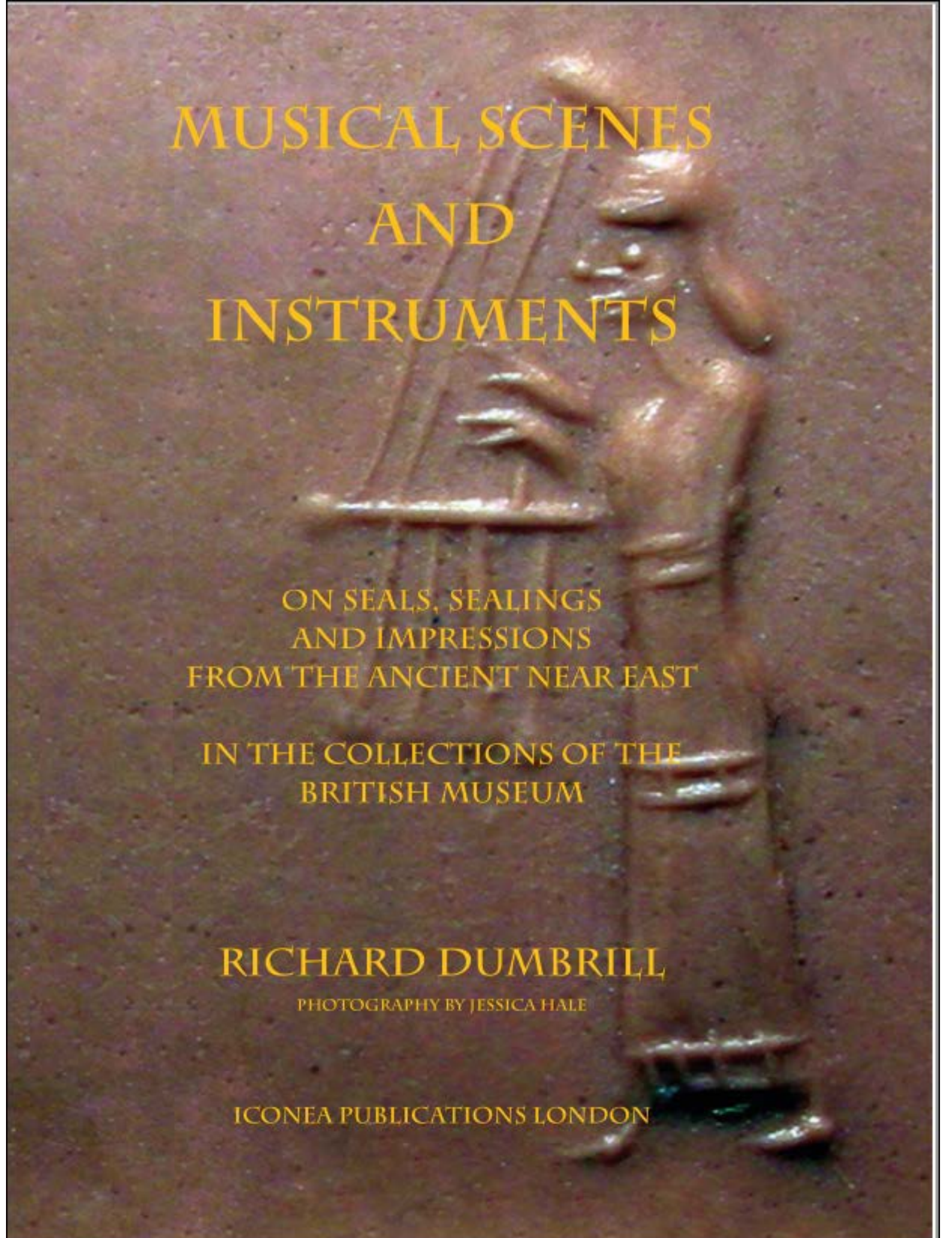

MUSICAL SCENES AND INSTRUMENTS

ON SEALS, SEALINGS AND IMPRESSIONS FROM THE ANCIENT NEAR EAST

IN THE COLLECTIONS OF THE BRITISH MUSEUM

RICHARD DUMBRILL

PHOTOGRAPHY BY JESSICA HALE

ICONEA PUBLICATIONS LONDON

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To the people of Syria and Iraq in their struggle

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INTRODUCTION

This book is a catalogue with descriptions of the scenes represented on seal cylinders and their impressions. It is mainly written for the attention of musicologists for their research without having to locate these objects in the numerous catalogues hosted at the Middle East Department of the British Museum. The volume includes all references and bibliographies essential for further studies of these artefacts.

I am grateful to the staff of the Middle East Department of the British Museum for their help, and particularly to Dominique Collon, unrivaled seal expert, to Jonathan Taylor and to Irving Finkel for their advice.

Map of Mesopotamia

Map of Mesopotamia showing the main sites where seal cylinders in this book have been excavated:

1: Tell Halaf
2: Chagar Bazar
3: Mari
4: Nimrud/Niniveh
5: Tell Asmar
6: Babylon
7: Nippur
8: Larsa/Uruk
9: Tello
10: Ur
11: Susa

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A Chronology of the Ancient Near East

7000BC Prehistoric cultures.
5600-4500 BC Tel Halaf Period (northern Mesopotamia).
5500-5000 BC Hacilar Period in Anatolia.
5500-4000 BC Ubaid culture in Mesopotamia.
4000-3700 BC Early Uruk Period (southern Mesopotamia).
3700-3500 BC Middle Uruk Period.
3500-3100 BC Late Uruk Period.
Ca. 3500 BC Troy I Period.
Ca. 3500 BC Chalcolithic Period in Syria.
3100-2900 BC Jemdet Nasr Period.
Ca. 3000 BC Proto-Elamite Period in Iran.
2900-2334 BC Early Dynastic I-III Periods including rulers: Pu-abi and Mes-ane-pada. Ebla archives.
Ca. 2800 BC Early Bronze Age in Syria.
Ca. 2600 BC Enmebaragesi of Kish.
2570-2342 BC Rulers of Lagash, including Ur-nanshe and Uru-inim-gina.
2340-2316 BC Reign of Lugalzegesi, ruler of Uruk, Umma, and Sumer.
2334-2154 BC Akkadian Period. Old Akkadian cuneiform tablets.
2334-2279 BC Reign of Sargon of Akkad, beginging of Akkadian Dyansty.
2278-2270 BC Reign of Rimush.
2269-2255 BC Reign of Manishtushu.
2254-2218 BC Reign of Naram-Sin.
2217-2193 BC Reign of Shar-kali-sharri.
2144-2122 BC Reign of Gudea, ruler of Lagash.
2121-2118 BC Reign of Ur-Ningirsu, Lagash.
2112-2004 BC Third Dynasy of Ur. Umma, Puzrish-Dagan and Girsu Archives.
2112-2095 BC Reign of Ur-Nammu.
2094-2047 BC Reign of Shulgi.
2046-2038 BC Reign of Amar-Sin.
2037-2029 BC Reign of Shu-Sin.
2028-2004 BC Reign of Ibbi-Sin.
2017-1763 BC Isin-Larsa Period.
2004-1595 BC Old Babylonian Period. Archives from Larsa, Nippur, Eshnunna, Sippar, Tell ed-Der, Ur and Kish.
1934-1924 BC Reign of Lipit-Ishtar, Isin.
1920-1740 BC Old Assyrian Period (northern Mesopotamia).
1900-1500 BC Old Elamite Period in Iran.
Ca. 1790 BC Reign of Sin-Kashid of Uruk.
1894-1881 BC Reign of Sumuabum, 1st Dyansty of Babylon begins.
1880-1845 BC Reign of Sumulael.
1830-1813 BC Reign of Apil-Sin.
1812-1793 BC Sin-muballit.
1792-1750 BC Reign of Hammurabi.
1749-1712 BC Reign of Samsuiluna.
1711-1684 BC Reign of Abi-eshuh.
1683-1647 BC Reign of Ammiditana.
1646-1626 BC Reign of Ammisaduqa.
1625-1595 BC Reign of Samsuditana.
1650-1400 BC Old Hittite Period in Anatolia.
1595-1157 BC Kassite Period (southern Mesopotamia).
1500-1350 BC Mitannian Period (northern Mesopotamia). Alalakh archives.
1400-1200 BC Hittite Empire in Anatolia.
1160 BC Elamite invasion of Babylon.
1156-1025 BC Second Dynasty of Isin.
883-612 BC Neo-Assyrian Period.
883-859 BC Reign of Ashurnasirpal II (northern Mesopotamia).
858-824 BC Reign of Shalmaneser III.
850-600 BC Urartian Period in Anatolia.
775-690 BC Phrygian Period in Anatolia.
721-705 BC Reign of Sargon II (northern Mesopotamia).
704-681 BC Reign of Sennacherib.
680-669 BC Reign of Esarhaddon.
668-627 BC Reign of Ashurbanipal.
625-539 BC Neo-Babylonian Period. Chaldean Dynasy, Archives of Babylon.
604-560 BC Reign of Nebuchadnezzar II.
Ca. 600 BC Persia conquers Lydia.
555-539 BC Reign of Nabonidus.
559-331 BC Achaemenid Dynasty. Old Persian manuscripts, Late Elamite tablets.
559-530 BC Reign of Cyrus.
521-486 BC Reign of Darius I.
499 BC Persians attack Naxos.
485-465 BC Reign of Xerxes.
490-479 BC Battle of Marathon. Persian invasion of Greece under Xerxes.
480-479 BC Battles of Thermopylae and Salamis. Battle of Plataea. Athens sacked by Persia.
358-338 BC Reign of Artazerxes.
334 BC Alexander invades Persia, Battle of Granicus River.
332 BC Alexander beseiges Tyre.
331 BC Macedonians capture Babylon. Battle of Gaugemela, Alexander defeats Darius III.
330 BC Persepolis sacked and occupied by the Macedonians.
323 BC Death of Alexander at Babylon.
311 BC Seleucid Dynasty begins.
281-260 BC Reign of Antiochos I Soter.
75 AD The latest Babylonian cuneiform tablets.

Courtesy of http://www.hixenbaugh.net/research/chronology.cfm?id=1

THE URUK PERIOD

The chronology of the Uruk period is roughly set between 4000 and 3100 BC. It developed from the Mesopotamian Protohistoric Chalcolithic and Early Bronze Ages. It was preceded, overlapped and succeeded by Ubaid and Jemdet Nasr periods, respectively.

The period was named after the Sumerian settlement of Uruk whence came the urban concept. From this propitious environment arose an unprecedented phenomenon of co-operation between its inhabitants. This led to the development of seminal inventions among which the plough; the standardized brick mould; the cuneiform script; accountancy; the harp; the vertical loom; clay cone patterns and seal cylinders as a secondary development. It is probable that each of these inventions found its origins in the unconscious cognitive process as each of them has undeniable structural analogies with man's own sensory organs. The plough might have come from its analogy with the design of a foot furrowing into the wet silt where seeds were sown after seasonal floods; the standardized brick mould might have come from its analogy with the morphology of the hand; writing might have come from its analogy with the gustatory system; accountancy might have come from its analogy with the olfactory system; the harp might have come from its analogy with the auditory system; the vertical loom might have come with its analogy with the vestibular system, and clay cone designs might have come from their analogy with patterns preferred by the retina of the visual system[1].

Seal cylinders arose from a combination of Urukean inventions and demanded remarkable inventiveness as they introduced the translation of three dimensional scenes, imagined or not, onto a cylindrical medium, unidimensionally and negatively etched for the purpose of a positive representation when rolled onto fresh clay. Today, the concept of the seal is an easy one to understand as centuries of its usage have made it almost innate. However, the intellectual creativity leading to its invention would have demanded a remarkable thought process.

A human footprint in the fresh clay meant nothing more, to the averagely minded prehistoric man, other than it was just a footprint.

Fig. 1. Footprint of *Homo Erectus* discovered in Kenya. Phtograph by Brian Richmond.

Little thought was required to distinguish small from large footprints, as was the distance between them and their depth. From these basic observations, much would have been deduced. The size of the prints would have revealed the age, the gender; the distance between them revealed the height of an individual and the depth, his weight. In turn, these reflexions would have brought up the concept of ratios, probably not immediately understood. Most importantly, the footprint was the negative representation of a positive object. This negative image, progressively, would have led to the extrapolation of a quantity of information contributing to the invention of the pictograph etched in fresh clay. The mark of a foot could convey a message which went far beyond the negative image: it had become a metaphor, a metonym, or a synecdoche-bearing sign.

Thus, the invention of the seal cylinder might have arisen from man's own footprint which unsurprisingly was how he first signed his brief and humble passage on earth.

The oldest footprints were discovered in 1978 by Mary Leakey and Paul Abell. They came from *Australopithecus afarensis*, and were found at the site of Laetoli in Tanzania and are about 3.6 million years old.

1. Roi, P., Girard, T., La Théorie sensorielle: Une Archéologie de la Perception Sensorielle. I Les Analogies Sensorielles. (2013).

LATE URUK (3100 -2900 BC)

BM 141632

Fig. 2. BM 141632.

Registration number: 1996,1002.1
BM Number: 141632
Height: 25.4mm
Diameter: 20.5mm
Provenance: Sumerian/Urukean?
Materials: Dark grey stone seal
Period/Culture: Uruk III

Acquisition: Bought from Douglas Simmonds in 1996.

Bibliography: Collon, D., 'Lute or Paddle?', *Acta Iranica*, 34, Third Series, Leuven, Peeters, (1999), pp. 475-82?; **Dumbrill, R.**, *The Archaeomusicology of the Ancient Near East*, Trafford, (2005), pp. 321-2; 'Organology and Philology of an Urukean Lute (?)' *ICONEA 2011 proceedings*, http://www.lulu.com/shop/search.ep?keyWords=iconea+2011&type= ; (2014), pp. 67-79.

Fig. 3. Modern impression of BM 141632.

In 1996, the British Museum acquired a new cylinder seal, (Figs 2 and 3) which was initially dated from the Uruk Period. The seal was described as depicting an individual, perhaps a woman on account of the hair style, sitting at the back of a boat and playing a long neck lute[1].

The device was initially identified as a lute because of later Akkadian representations, from about 2200 BC, of similar types of instruments. (See BM 28806 and BM 89096, in the present volume [2].) However, a soundbox was not clearly seen on this new aquisition. (Figs 4 and 5) There were other critical arguments which advanced that the implement might have been a paddle and not a musical instrument although the hand positions and the general position of the musician did not fit in with the usual paddling posture shown in figure 7, for instance, where the paddle is clearly depicted down to the water. Figure 5 shows that the hand/arm positions of both Uruk and Akkadian seals are identical although a thousand years would have distanced them.

There were further doubts about dating as the seal would have been reworked, certainly in ancient times, and though not quite a palimpsest, there were significant alterations to what might have been the original scene.

Therefore the whole seal became conjectural.

However, I had imagined the outlines of a hypothetical round soundbox, (Fig. 8) but I must confess at that time I relied on evidence from other seals including elusive instruments played by either bow-legged children or dwarfs, (Figs 9, 10 and 11. See also BM 89184; 89411; 89786; 89786; 89818; 102520 and 134757, in the present volume) a bit like fashionable 'air-guitar playing'. (Fig. 1)

Nevertheless, I remained confident that long neck type plucked string instruments would have existed during the Uruk period and even before. The instrument represented would not have needed a sondbox and would have been an early form of tube-zither. It would have been made from cane, probably *arundo donax*, cut to an appropriate size of about 60cm long with a diameter of about 2cm. A string of gut, of sinew, of animal hair, but also possibly made from vegetal fibre, would have been stretched from one end to the other and inserted into a slit made at each extremity. A knot would have been tied at each end of the string to prevent it slipping through the slots. An archaic form of mobile bridge would have been placed where suitable and would have defined the speaking length. The instrument would not have been tuneable, as we understand it today, by means of dedicated tuning devices such as knots, pegs or pins, but was stretched, only because of the tension brought up by a bridge. In the course of evolution, the bridge would have been secured into a carved groove. This probably happened when musicians became urban dwellers and needed to tune up to one another. They needed to standardise both speaking length and string tension, which by now would have been adjusted with simple tuning devices. The longer the speaking length of the string, the smaller the intervals on the finger-board, as with the Turkish tambour, for example[3]. It is very probable that earlier instruments did not have long necks, or that the bridge was placed near the middle of the instrument to allow for simpler intervals[3]. The ideal speaking length would have been about 40cm allowing for comfortable playing without over-stretching of the fingers.

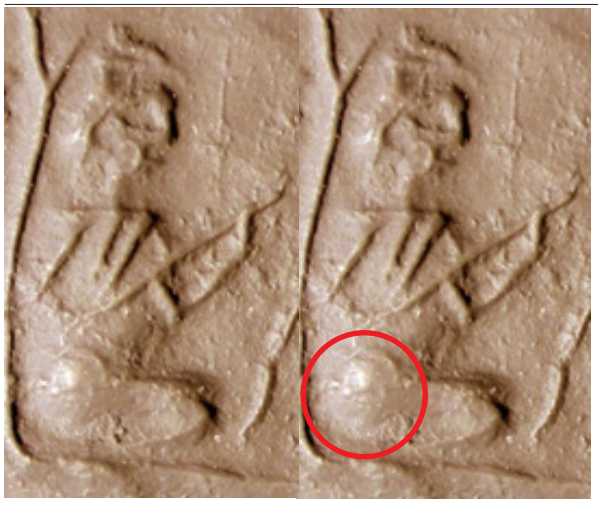


Fig. 4. Detail of BM 141632. The encircled dome shape might have been a hanging resonator or a soundbox. Yet, it has been suggested that it would be the right knee of the musician which was represented. However, three-quarters depictions were not known until much later in art.

Fig. 5. Left, BM 28806, Akkadian Period, right Urukean BM 141632. It would seem that the Uruk seal would show more of a possible resonator/soundbox than would the Akkadian depiction.

Fig. 6. Left, original engraving. Left, more recent re-cutting on the same seal.

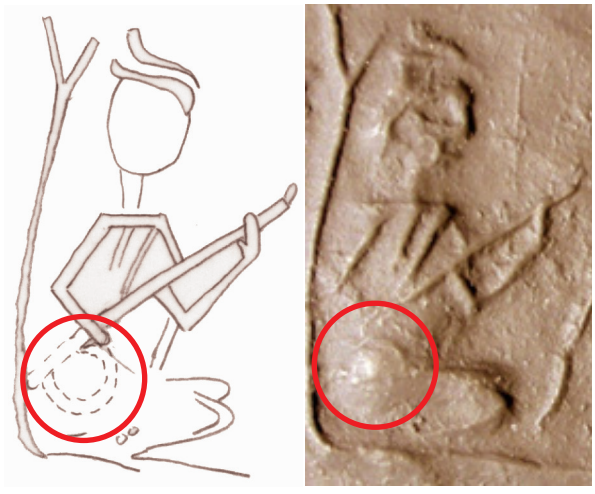


Fig. 8. Possible outline of a resonator/soundbox. (Drawing by the author)

Fig. 7. Detail of a modern impression from a lapis lazuli cylinder seal, late Uruk period, (3300-3000 BC) in the Voderasiatisches Museum, Berlin, VA 11040.

Fig. 9. Elusive lutenist. Line drawing from a modern impression from a black calcite seal cylinder. Iran. (2000-1500 BC), Speelers, (1943), p.138 and Collon, 1987/154. (Drawing by Yumiko Higano)

Fig. 10. Line drawing of a modern impression from a lapis lazuli seal cylinder, and detail. Isin/Larsa. (2000-1500 BC), BM 86269.

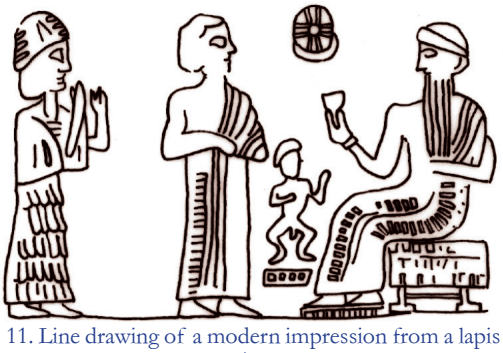


Fig. 11. Line drawing of a modern impression from a lapis lazuli seal cylinder, and detail. Isin/Larsa. (1500-1000 BC), Speelers, (1943), p.138 and Collon, 1987/154.

Fig. 12. Modern 'air-guitarist'.

There have been numerous attempts at sourcing long neck lute types. Stauder thought highland foreigners[4] brought them to Mesopotamia. There were many other propositions arising mainly from the iconography. However, some instruments have not survived the erosion of time, and others were represented only later in the course of history, such as the long neck lute types, when they became worthy of depiction and inscription, having reached, perhaps, temple, palatial or urban status at a level which needs to be appreciated. Copulation was even depicted in their context[5].

It is only recently that philologists[6] have surmised that Sumerian **giš.gù.di**, Akkadian *inu*, would equate with the long neck lute type.

The Chicago Assyrian Dictionary defines the *inu*[7] as a 'talking, or noise-producing stick, or wood' which agrees with my hypothesis that it was a tube-zither rather than a long neck type lute fitted with a resonator or with a soundbox, that was represented.

A series of lexical texts mention stringed instruments divided into two sections. In the first part there are many names for different types of harps, lyres, soundboxes of percussion instruments, and their various parts. The second section lists wooden objects which can be described as functional poles and sticks, with special items placed at one or both ends, such as crutches, goads, stocks and staffs, aptly describing long neck lute types. It includes the Sumerian **giš.gù.di**, or **giš.gù.dé**. Another list has Sumerian words of the **giš.gù.di** family connected with the long neck lute type and related to both its structure and playing.

An unpublished fragment translates Akkadian *inu* as Sumerian **giš.sa.3** implying that this instrument was fitted with three strings. With regards to line 132 below, the number does not, obviously, refer to an instrument with 30 strings but rather to the speaking length of its strings. This variation would probably have indicated that this lute had strings with a speaking length of 30 *ubanātu*, about 50cm. A lexical text has the entry: **GIŠ gi-eš-gu-da GÙ-DÉ** = *inu*, which heads a list of musical terms preceding the Akkadian verb *zamaru* 'to sing' and in another text, **GIŠ gù-di** and **GIŠ dù-a** are mentioned along with 89 other organological theoretic words. Another list has: **mu.gù.dé** = **giš.gù.dé** = *inu*.

Ḫḫ VIIB 117-134

117	**giš.gù.dè**		
118	**giš.SAR**		
119	**giš.ù.lú.DU/ša$_4$**	= *inu*	'song-maker'
120	**giš.gaba.gub**	= *inu*	'breast-stander'
121	**giš.šu.galam.ma**		'hand-descending'
122	**giš.sa.šu**	= *inu*	'covered/fretted-string'
123	**giš.ùr**	= *inu*	'leg'
124	**giš.u$_5$**	= *inu*	'rider'
125	**giš.i.nu**		'to revere the statue'(?)
126	**giš.dù.a**		'knowledge'(?)
127	**giš.dím**		'for creation'(?)
128a	**giš.dim**		**'DIM** *risku* ligature/fret'(?)
128b	**giš.bal**		'royal seal'(?)
128c	**giš.á.gá**		'side-placed'(?)
129a	**giš.tún**		'deep/bass'(?)
129b	**giš.sikil**		'clear'
130	**giš.gal**		'large'
131	**giš.šu.gal**		'big hand'
132	**giš.gal.30.àm**		'30 big'
133	**giš.gù.dé.ša.u$_{18}$ša$_4$**		**'sausa** sound. Plucked'?
134	**giš.gù.dé.ša.u$_{18}$ša$_4$ gú-gar.ra**		'shoulder-placed-plucked'(?)

The term is also found in another text: *pi-it-nu [ta-p]a-lu, [x-x]-xlu [i]-nu.* The Sumerian column is broken. Another has **giš.gù.dé tag.tag.[ga.zu]**: (*gan*)*-nu lap-tu-ka* which translates as: 'when you pluck the *inu',* and another has: **giš.bal.ki.š.r.ra mu**(var.**mi**).**ni.in.gar**: *ina-an adi[ša]-ri iškum.*

The oldest text mentioning the **giš.gù.di** is inscribed on the Gudea Cylinder A VI4 where Shulgi, ruler of Ur, (2094-2047 BC), in a self-laudatory Hymn B, writes:

> 'I, Shulgi, the king of Ur, dedicated myself also to music; nothing related to it was too complex for me. I penetrated the depth and width of the consummate musical training of the **tigi** and **adab** compositions. The **šu-kár** instrument, to appease the heart in anger, and in their preparation I did not bungle anything; by pondering and striving I succeeded in fixing their rules. I learnt the sweetness of the string thirty instrument and to the **zàmí**, the 3-string instrument and the essence (heart) of the musical craft, the great **šà-ša**$_4$, the **algar**, the *sabîtum* (which) are of the ruler's rite, I taught the herald their fingering. I taught/knew how to pluck the strings of the *mirîtum*. The **Urzababa** instrument, the *ḫarḫar*, the *zanarû*. The 'Big Dog', the **giš-dìm**, that give sounds like (the cries of) the boatmen. A son of a musician, with a pure hand, made (them) for me. The **gù-di** instrument that had never been played (before by me), when it was . . . brought to me, Of that very instrument I divined its secret, I was able to set in order as something that had ever been in my hand; whether to loosen or to fix the strings on it did not escape (the ability of) my hand.'

The Akkadian word *inu* is much isolated. We do not trace it in any other Semitic language and it seems that it was known only under its Sumerian equation of (**giš**)**. gù.di**. On the other hand there is similarity with the Sanskrit/Hindi *rudri* = string instrument, such as the *vina*, which has a long neck and is fretted lute fitted with a resonator, rather than a soundbox[8], as would have been the case with the earliest form of the instrument from Mesopotamia.

Al-Farabi mentions the Arabian *šarūdh,* an instrument, which we find in India under the name of *sarod*, as the favourite of the Arabs. It was the invention of a certain *Hulays Ibn al-Ahwas* who lived in the mountains around Samarkand.

According to *Fārābī*, the instrument was invented in the country of *Maḫ* in the year 1228 of the Alexandrine era, that is the year 306 of the Muslim Arabs. There is a drawing in a copy of al-Farabi's manuscript but it makes no sense.

Vüllers' *Persico-Latinum Lexicon* defines the *šarūdh* as the 'king of the *rud'*, that is the best of the instruments of the *'rud'* family.

The word spreads on the one hand, via the Indo-European medium, into the Spanish *'rota';* French *'rotte';* Welsh *'crwth'*, etc., and on the other, via the (loaned from Sumerian) Semitic medium, into Arabic *''ūd';* Ugaritic *''d';* Spanish *'laúd';* German *'Laute';* French *'luth'* and so forth.

The long neck lute type in the OED is orthographed *tambura; tambora; tamera; tumboora; tambur(a)* and *tanpoora*. We have an Arabic *ṭunbur;* Persian *tanbur;* Armenian *pandir;* Georgian *panturi* and a Serbo-Croat *tamburitza*.

The Greeks called it *pandura; panduros; phanduros; panduris* or *pandurion*. The Latin is *pandura*. It is attested as a Nubian instrument in the third century BC. The earliest literary allusion to a lute type in Greece comes from Anaxilas in his play *The Lyre-maker* as '*trichordos*' which might have been the Sumerian **giš.sa.3** = *pitnu šelašti*. According to Pollux, the trichordon was Assyrian. The Greeks gave it the name '*pandoura'*. There is here some homophony with **b/pan.tur**, where Sumerian **giš b/pan** equates to Akkadian *qaštu (tilpanu)* = (wood)-'bow' and Sumerian '**tur**' equating to Akkadian *seḫeru* = 'small'. This is further reflected in Georgian where *tar*, *thir* and *tul*, also mean 'small'.

Notes

1. Collon, D., 'Lute or Paddle', in *Monumentum Marcelle Duchesne-Guillemin, Acta Iranica* 34, Peters (1999), pp. 477-84. There, Collon writes that *'...the seal is made of a dark grey, almost black stone which is lighter where the surface has been worked or damaged. It is relatively squat in size (2.55 x 2.1cm) with a perforation drilled from both ends, with slightly flaring extremities and a diameter of about 0.55cm. It bears an incised design which, in its present form, is crudely executed but this is due to recutting of a worn original. This recutting is probably recent as are the various scratch marks on the surface of the soft stone. Although it could be argued that the seal is an outright forgery, I do not believe this to be the case and everything indicates the recutting of worn pecked shapes made with a different tool around 3100 BC The design is very close to that on a cylinder seal from the 'Sammelfund' at Uruk* (Heinrich, 1936, pl. 17a) *which probably also dates to around 3100 BC. The Uruk seal* (Moortgat, 1940, no. 30: Amiet, 1980, no. 655; Collon. 1987, no. 897) *is made of lapis lazuli and measures 4.3 x 3.5 cm; it is therefore larger but it has precisely the same proportions as the British Museum seal.'*

2. Collon, D., Draffkorn Kilmer, A., 'The Lute in Ancient Mesopotamia', *Music and Civilisation*, The British Museum Yearbook 4, Mitchell, T.C., ed. Published for the Trustees of the British Museum by British Museum Publications Ltd., London, (1980), pp. 13-28.

3. This organological point must be further explained. The longer the speaking length of a string on a lute type, the larger the finger interval between two consecutive pitches. The length of a string on a Turkish tambour results in that a comfortable position of the fingers on the neck generates micro intervals while the same position of the fingers on an Arabian *'ūd* will produce larger ones. See also Eichmann, 'Extant Lutes from the New Kingdom and the Coptic Period of Ancient Egypt, *ICONEA 2011*, Richard Dumbrill, ed., (2014), pp. 32-3 where there is an Egyptian drawing of a spike lute from Deir el-Medina (18thdynasty) with a total length of about 50 centimetres, which supports my hypothesis.

4. Stauder, W., 'Zur Frühgeschichte der Laute' 4. *Festschrift Helmut Osthoff*, Tutsing, (1961), p. 15ff.

5. Dumbrill, R., *The Archaeomusicology of the Ancient Near East*, Trafford, (2005), p. 335, Pl. 36.

6. Sumerian **gù-dé**, Akkadian *nagāgu*, 'to roar, bray'; *sagāmu* 'to cry out'. Literally 'shouting-head'.

7. *Chicago Assyrian Dictionary* I 151f. *inu* A.

8. Resonators and soundboxes differ in that firstly the former is more ancient than the latter. Secondly, the former is not an integral part of the instrument. Usually it is an open gourd, ot calabash placed below or hanging from the instrument and does not have a soundboard to cover its opening. It amplifies the sound by the principle of resonance. A soundbox is attached to the instrument and has its opening covered with raw hide or with wood, much later in its development. The frequency of the vibrating string is transmitted, by means of a bridge, to the soundboard which, with the cavity it covers, amplify the vibrations of the strings.

Fig. 13. Author 's reconstruction of a hypothetical Urukean lute type.

JEMDET NASR PERIOD

The site of Jemdet Nasr is located at about 100 kilometres south of Baghdad and to the northeast of Babylon. It was excavated by British and American archaeologists in the 1920s. It is now generally accepted that the Jemdet Nasr Period placed itself between 3100 to 2900 BC.

The Urban Revolution which probably stemmed from Uruk, spread to Jemdet Nasr but might have been the consequence of a polygenetic phenomenon which came to Southern Iraq as a result of adverse climatic conditions changing the pattern of settlements. The low rainfall stimulated inventiveness with more sophisticated irrigation systems, the production of typical pottery with sharp shoulders, and the smelting of alloys of copper and tin, into bronze to produce a better material for tools and weapons as well as for ornamental or totemistic art. It is no yet possible to say that religion was a concept which existed, at that period, for lack of evidence. However, this is the site where **ENLIL** was first attested. He might not yet have been the god we know from later occurrences but must have been a personage of importance. The word **EN** was probably used to qualify a high dignitary, and **LIL** meant the air or the wind thus **ENLIL** would have been the 'Master of the Space'.

It is at that period that urban settlements became rudimentarily fortified with an embryonic 'city-state' ideology which led, as a consequence, to the production of city seals and city lists, among which Ur, Nippur, Zabalam, Larsa and Kish, with inscriptions indicating possibly that peace agreements were agreed between them, with Uruk as metropolis. This ideology resulted in some 'insular isolationism' which helped typify pottery and other styles. Nevertheless, some trade developed with the gulf cultures, notably with Oman, on the one hand, but on the other, control over Elam progressively faded away.

Traditionally, the Great Flood would have separated Jemdet Nasr from Early Dynastic cultures. However, there is no archaeological evidence of a systematic inondation having drowned most of the human kind and animals.

Fig. 14. Administrative account cuneiform tablet of barley distribution with cylinder seal impression of a male figure, hunting dogs, and boars from the Jemdet Nasr Period (3100-2900 BC) probably from Uruk, the modern Warka. Dimensions: 5.5 x 6 x 4.15cm. Raymond and Beverly Sackler Gift, 1988. Accession Number: 1988.433.1. This tablet most likely documents grain distributed by a large temple, although the absence of verbs in early texts make them difficult to interpret with certainty. The seal impression depicts a male figure guiding two dogs on a leash and hunting or herding boars in a marsh environment.

JEMDET NASR (3100-2900 BC)

BM 89355

Fig. 15. BM 89355.

Registration number: 1883,0820.5
BM number: 89355
Height: 20mm
Diameter: 20mm
Provenance: Iraq
Materials: Pink marble
Period/Culture: Jemdet Nasr

Acquisition: This seal was acquired in 1883 from William D. Cutter of 36 Great Russell Street, London.

Bibliography: Wiseman, D.J., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962).

Fig. 16. Modern impression of BM 89355.

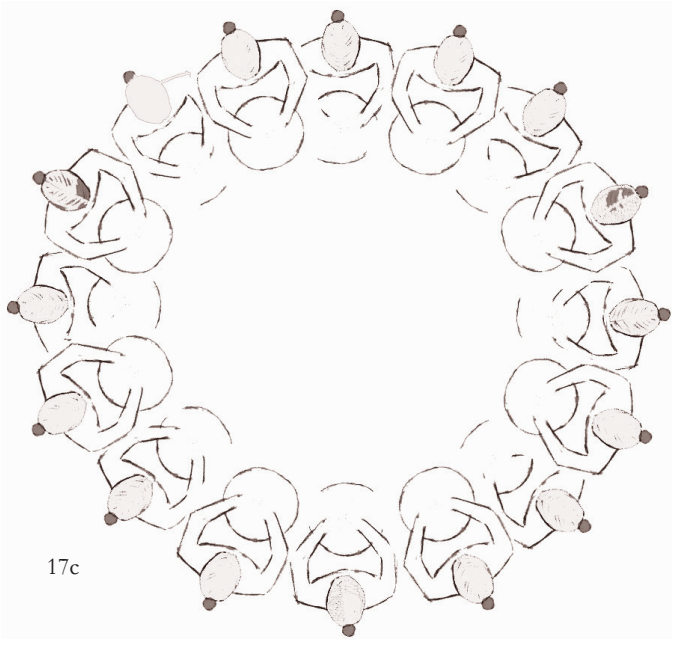
Some of the Jemdet Nasr seals are most recognisable because of the way in which they were engraved. The vertical bow drills used for their production left naive concave hemispherical hollows stylising the human shape, with only simple lines for arms and straight ornamental, or other details. Mostly, legs are not represented. Also, typical of the period, are pig-tails, in which fashion individuals have their hair, in the scenes where they are represented.

It is probable that the folks had not been sitting in straight sequences - that is one behind the other in a straight line - as represented on the impressions. They would have been placed in a circle, all facing the centre. This was a position which engravers would not have been able to represent on seals at that time - either because they would have been unable to conceptualise perspective, perhaps because the shape of the seals did not allow for such representation, even had they mastered the concept, or that it was consciously that they decided against perspective representation. They engraved scenes around the surface of cylinders but their impressions would remain flat. It is not improbable that flat representations would have been interpreted as equations of the 'real scene' by simple unconscious processes. The flatness of the representation immediately reminded the viewer of the original scene, under the condition that they would, in the past, have witnesses or participated in such events. Circular structures are inherent. This was reflected in early architecture, in pottery, with *bullae*, etc. The circle and its idealisation as a sphere, or rather, the sphere and its materialisation as a circle being a fundamental epistemological phenomenon to which symmetry, omnipresent in Mesopotamian art, would translate the intangible orb into a haptical phenomenon. They translated spherical cosmology into cylindrical seals which in turn rendered it in the flat having thus anticipated the Flemish geographer and cartographer Gerardus Mercator's invention of 1569, by some five thousand years, not for the purpose of cartography, but for cosmological mapping, a far more philosophical achievement.

To these extraordinary mechanisms of thought implied in the interpretation, from the intangible into the haptical, negative engraving for a positive impression was also conceptualized. This would not have been a serendipitous phenomenon but would have been the consequence of a slow evolutionary process stemming from the Upper Palaeolithic, some 25000 years BP, where we find the first beads made of drilled bone, ivory and shell, and the first engravings of decorative, figurative and perhaps symbolic, totemistic items. Later, during the Neolithic appeared drilled beads, now made of stone, implying stronger tools and amelioration of techniques. About the same period, stamping developed on pottery, on stamp seals, on lenticular and discoid pendants, until around 5000 years BP when cylinders turned up in various incised shapes. This led to Early Bronze Age inventions of clay *bullae*, clay sealings and eventually of clay tablets.

17a

17b



17c

Fig. 17a) Here, folks are represented as the seal shows, one behind the other; 17b) where all are in a straight line, and 17c where the participants are in a circle, for many possible reasons, one of which being their binding into a ceremonial of some kind where each needed to know the actions of the other for the purpose of 'togetherness', in this case, beating the drums, simultaneously, rather than focusing on a centre piece which anyway is not depicted.

BM 89413

Fig. 18. BM 89413.

Registration number: 1846,0523.345
BM number: 89413
Height: 20mm
Diameter: 19mm
Provenance: Iraq
Materials: Rock crystal
Period/Culture: Jemdet Nasr

Acquisition: This seal was acquired in 1846 from John Robert Steuart (1780 - 1848) who was brother to Colonel Claude Scott Steuart. He lived some years in Naples, then a part of the Kingdom of the Two Sicilies. The British Museum purchased coins both from Steuart and from sales of his collections (Sotheby, 30th January 1840 and 19th July 1841), in some cases via H.O. Cureton. Wilson (1841), pp. 238-40, nos.1, 5, 10 refers to coins from R. Steuart Esq. in the cabinet of the East India Company, one of which was acquired in Iran.

Bibliography: Wiseman, D.J., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962).

Fig. 19. Modern impression of BM 89413.

The impression from this seal is more complex. Pigtails are differently rendered and hemispheric hollows, as seen in the previous example, have become conical, resulting in a less stylised but more realistic depiction of the human shape. Additionally, the scene reads no longer in two levels, but in three. The first level includes the subjects, the second, the objects which the subjects appear to contemplate, or worship, and the third, the lower register, which would be the complement, consisting of various intriguing shapes which might be vessels with spouts. It is very impossible to say what the gathering was about. What is sure is that it included a number of people involved in a communal, probably cultic, ceremony.

Whenever the word 'cultic' is mentioned, it is subjectively complemented by others such as 'hymn', 'cantillation', 'declamation', 'music', etc. Here, subjects have arms raised in a position which evokes some form of adoration. Should we agree that they might have all raised their arms at the same time, then we might also suggest that they recited some form of ritual incantation, together, therefore with the same rhythm. Thus it is plausible that they were singing since rituals have almost always been accompanied by music during the history of mankind, in all civilisations, probably for the reason that music is the means by which words may float and fly to reach the gods dwelling in the higher spheres.

Figures 20 and 21, to the right illustrate differences in the treatment of subjects, objects and complements, and in the quality of the workmanship and tools.

Fig. 20. Detail from BM 89355.

Fig. 21. Detail from BM 89413.

BM 132192

Fig. 22. BM 132192.

Registration number: 1957,0417.3
BM number: 132192
Height: 19mm
Diameter: 16mm
Material: rock crystal
Period/Culture: Jemdet Nasr

Acquisition: Purchased from Dr. H.C. Duncan in 1957.

Bibliography: Sax, M. and Meeks, N.D., (1994) p.158, fig.3; **Wiseman, D.J.**, (1962)a p.3, pl.3f.

Fig. 23. Modern impression of BM 132192.

This seal is very much in the style of the previous one and was probably cut with similar tools. It is most artistic and its subjects express, each in their own manner, intense devotion, had it been devotion that was intended. It is one of the rare seals of the Jemdet Nasr Period where the artist engraver attempted at representing the scene as it might have been performed. This is reflected in the position of the subjects, some facing each other and some back to back, all in a position which looks as if it were improvised, giving the scene a more realistic feel, almost like a modern photograph taken on the spot. The three objects resting at the base of the impression might have been baskets. They might have contained fruits of the harvest suggesting a kind of thanksgiving celebration. The two shapes to the left are not easily understandable. The furthest to the left might have been a baby on account of the small arms. The shape next to it is not clear and resists interpretation.

Fig. 25. Perhaps a baby?

Fig. 24, a and b. Various postures of devotion?.

Fig. 26. Undefined shapes: flower? chicken?

BM 102411

Fig. 27. BM 102411.

Registration number: 1906,1110.1
BM number: 102411
Height: 18mm
Diameter: 23mm
Provenance: South West Iran. Khuzistan, Susa
Materials: Pink/orange marble/calcite
Period/Culture: Jemdet Nasr

Acquired: in 1906. This seal was acquired from Élias Géjou, (1894-1939) an antiquities dealer of Armenian origin, resident at various addresses in Paris and active at least from 1895 to 1939. He consistently gives his name both in his letterhead and in his signature as I. Élias Géjou, but this has rather consistently been represented in the British Museum's records as J.E. Gejou and even once (Reports to the Trustees, 27 September 1930) as E. I. Gejou. Up to 1914 he seems to have dealt exclusively in antiquities from Mesopotamia, but thereafter his interests extended to Anatolia (Turkey) and Egypt. His correspondence in the Middle East archives includes packing lists of many of the collections offered or sold. He also sold tablets to the Louvre. In 1920 he attempted to act on the British Museum's behalf in purchasing Mesopotamian antiquities excavated by German archaeologists and held in transit in Lisbon at the outbreak of war. Correspondence includes reference to purchasing antiquities in Baghdad (1920-21), a sales trip to New York (1926), his French citizenship and the situation of his brother Elias Géjou who was still an Iraqi citizen (1930). From at least 1923 to 1939 he also maintained a business at Cosne-sur-Loire (Nievre) under the name of Villa Goudea. (Courtesy of the British Museum)

Bibliography: Borowski, E., 'Introduction', in J.G. Westenholz (ed.), 'Seals and Sealing in the Ancient Near East' *Proceedings of the Symposium held on September 2, 1993, Jerusalem, Israel* (Bible Lands Museum, Jersualem), (1993), pp. 11-22 (esp. pp. 13-14); **Wiseman, D.J.**, *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962).

Fig. 28. Modern impression of BM 102411.

In this scene, folks have straight and rigid-looking pigtails unlike with preceding examples where they appear to be free flowing. There is neither pottery nor palm branches to be seen. All sit on a mat. Arms are raised in a typical manner. Participants face to the right. The way they face does not seem to be important. It will be interesting to note that the rendition of the mat on which sit the subjects could be interpreted as a three-dimensional depiction. However this would be unlikely at that time.

The typical position of the arms raised in a gesture of imploration shows unity in movement perhaps suggesting rhythmical coherence: it is possible that some form of incantation might have been sung to this rhythm. The nature of the music is, of course, impossible to read from the seal. However, one would not be far off guessing that its ambitus would have been limited to a few degrees and that its expression relied more on rhythm that on melody.

The Corpus of Sumerian hymnology is important. However, very little from the Jemdet Nasr Period has survived, probably for the reason that no religious hymns would have been written at that time. Nevertheless, here follows a later example from Sumerian hymn 11 to Nannar translated by Frederick Augustus Vanderburgh in 1908, extracted from his *ORM Texts in the British Museum*, published by the Columbia University Press:

'0 lord, highest of the gods, alone in heaven and earth exalted!
Father Nannar, lord of Ansar, highest of the gods! Father Nannar, lord Anu the great, highest of the gods!
Father Nannar, lord Sin, highest of the gods!
Father Nannar, lord of Ur, highest of the gods!
Father Nannar, lord of E-gissirgal, highest of the gods!
Father Nannar, lord of the shining crown, highest of the gods!
Father Nannar, of most perfect royalty, highest of the gods!
Father Nannar, in royal robes marching, highest of the gods!
strong young bullock, with great horns, of perfect physical strength, with hazel-colored pointed beard of luxurious growth and perfect fulness! fruit, whose stalk growing of itself reacheth a tall form, beautiful to look upon, whose perfection never satiateth! mother, the producer of life, thou who settest up for the creatures of life a lofty dwelling! merciful and gracious father, thou who boldest in hand the life of all the land! lord, thy divinity, like the distant heavens and the broad sea, inspireth reverence! creator of the lands, founding the temple and giving it a name! namer of royalty, determiner of the future for distant days! mighty prince, whose distant thought no god can declare. thou whose knee bendeth not, opener of the ro ad for the gods thy brothers! thou who goest forth from the foundation of heaven to the height of heaven, opening the door of heaven, creating light for all men! father, begetter of all, who lookest upon the creatures of life, who thinkest of them! lord, who fixest the destiny of heaven and earth, whose command no one changeth! thou who boldest the fire and the water, who turnest the life of creation, what god reacheth thy fulness!
Who in heaven is high? Thou alone art high.
Who on earth is high? Thou alone art high.
As for thee, when thy word is spoken in heaven, the Igigi bow down the face.
As for thee, when thy word is spoken on earth, the Anunaki kiss the ground.
As for thee, when thy word like the wind resoundeth on high, food and drink abound.'

BM 129597

Fig. 29. BM 129597.

Registration number: 1945,1013.141
BM number: 129597
Height: 21mm
Diameter: 21mm
Culture: Jemdet Nasr

Acquisition: Seal acquired in 1945 with contribution from The Art Fund. Purchased from Charles Alexander Carnegie, 11th Earl of Southesk.
Bibliography: Wiseman, D.J., (1962)a p.5, pl.4f.

Fig. 30. Modern impression of BM 129597.

There are two pig-tailed, sitting individuals with arms raised in a gesture of imploration, of adoration, or of any other ritual significance, with hemispheric objects placed in a regular manner. This seal was made mainly with a vertical bow drill and a hand held tool for straight lines and arms.

The space between each subject is filled with eight small hemispheres, four large and one medium one.

The geometrical regularity of these hemispheres might have been an attempt at notating the rhythm played on these shapes which might have been drums. They are of three sizes, large, medium and small.

This might also suggest three different pitches. The lines under or overlying the large 'drums' might have indicated that they were accented.

This far-fetched hypothesis finds justification in that should the visual be depicted, why not the sound as both affect our sensory organs.

BM 129598

Fig. 31. BM 129598.

Registration number: 1945,1013.142
BM number: 129598
Height: 19mm
Diameter: 21mm
Period/Culture: Jemdet Nasr

Acquisition: Acquired in 1945 with contribution from the Art Fund. Purchased from Charles Alexander Carnegie, 11th Earl of Southesk.
Bibliography: Carnegie, H., (1908), p.130, pl.X; **Wiseman, D.J.**, (1962)a, p.3, pl.3c.

Fig. 32 Modern impression of BM 129598.

Unlike with the previous seal, there are only two sizes of hemispheres. The pattern consists of one large hemisphere with two smaller ones. This may also be an attempt at representing rhythm. The present seal differs from all others in the same style in that the arms are not articulated but extend out of the body in a straight line, pointing to the heavens. Common to most seals of the same period are two horizontal lines with perpendicular ladder-like lines between them and above which, usually folks sit. This is perhaps the representation of a mat or of some kind of estrade.

BM 132190

Fig. 33. BM 132190.

Registration number: 1957,0417.1
BM number: 132190
Height: 16mm
Diameter: 20mm
Period/Culture: Jemdet Nasr

Acquisition: Acquired in 1957. Purchased from Dr. H.C. Duncan.
Bibliography: Porada, E., 1948a 13; **Wiseman, D.J.,** (1962)a p.2, pl.3b.

Fig. 34. Modern impression of BM 132190.

Here, there is one ladder-like structure for each folk represented. Interestingly, it is seen to the far right of the impression, and also, obviously, to the far left, pointing to the sky. Would it, therefore represent the mat on which they were sitting or would this be the symbolical representation anticipating Jacob's ladder, in a forerunning mythological context later known from the Book of Genesis? The arms of the subjects are represented in their usual position unlike on the previous seal. There is no representation of hypothetical drums/rhythmical notation.

BM 102422

Fig. 35. BM 102422.

Registration number: 1906,1110.12
BM number: 102422
Height: 19mm
Diameter: 20mm
Provenance: Iraq? South West Iran?
Materials: Orange-red marble (calcite)
Period/Culture: Jemdet Nasr

Acquisition: Acquired in 1906 from Élias Géjou.
Bibliography: Wiseman, D.J., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962).

Fig. 36. Modern impression of BM 102422.

Here, larger hemispheres have a nipple in their centre, probably due to the shape of the drill bit. There are difficult to identify. The ladder-like structure is also present in this scene but remains almost horizontal. The design of this seal is far less artisticand would probably have been a 'cheaper' model, perhaps made by an apprentice. The arms are not articulated at the elbow.

BM 102571

Fig. 37. BM 102571.

Registration number: 1908,0411.79
BM number: 102571
Height: 16mm
Diameter: 16mm
Materials: Very dark green chlorite
Period/Culture: Jemdet Nasr

Acquisition: Acquired in 1908 from Élias Géjou.
Bibliography: Wiseman, D.J., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962).

Fig, 38. Modern impression of BM 102571.

This seal is much more complex and incorporates other complements which are also difficult to indentify. The ladder-like mat structure is present, subjects have pigtails, arms are mainly in the same position with varying angles. Hemispheres are no longer part of the scene. The seal is less tidy both in concept and execution and could perhaps indicate a transition between styles.

BM 89752

Fig. 39. BM 89752.

Registration number: 1983,0101.294
BM number: 89752
Height: 23mm
Diameter: 22mm
Provenance: Iraq
Materials: Grey / brown marble (mainly calcite)
Period/Culture: Jemdet Nasr

Acquisition: Acquired around 1884.

This seal was probably excavated by Hormuzd Rassam (1826 - 1910). It was found in old collections, apparently previously unregistered, most probably acquired before 1884, from Rassam in Babylonia or early Assyrian excavations, but possibly of wholly indeterminate origin. Hormuzd Rassam was an archaeologist. He was born in Mosul. Father of Mary Rassam and younger brother of Christian Anthony Rassam who had served as the principal interpreter to Lt. Col. Chesney's Euphrates Expedition of 1835-37, served as British Vice-Consul at Mosul from 31 December 1839 until his death in 1872. He carried out spasmodic excavations at Nineveh (July-October 1849, April-May 1851, May-October 1851, October 1851-March 1852, October 1852-April 1854). Hormuzd Rassam began his own archaeological career as an assistant to Austen Henry Layard and went on to excavate himself at Nineveh (1878, 1879, 1880), Nimrud (1878, 1879, 1880), Assur (1878, 1880), Balawat (1878), Babylon (1879, 1880), Dailem (1880), Tell ed-Der (1880), Abu Habba or ancient Sippar (January 1881 - October 1882), Birs Nimrud (1880), and Tell Ibrahim (1881-82) in Mesopotamia, as well as Van in eastern Turkey; posted to Aden as a political interpreter (1854), where he served with his brother-in-law and East India Company chaplain, Rev. George Percy Badger, for eight years under William Marcus Coghlan; Hormuzd Rassam later played a leading role with Lieutenant-Colonel W.F. Prideaux, Third Assistant Resident at Aden, in the controversial British dispute with Emperor Theodore II of Ethiopia (1855-68) which resulted in the burning of the Ethiopian capital at Magdala. He retired to Brighton, and published a popular account of his discoveries in the book 'Asshur and the Land of Nimrod', New York, Eaton & Mains, 1897. His excavation papers are held in the Central Archives in the British Museum. An oil portrait of Rassam by A. Ackland Hunt is kept at the Department of the Middle East at the British Museum, which had been given by Rassam's daughter, Mary Rassam, to the Brighton and Hove Museum.

Bibliography: *DNB* (Second Supplement), vol. III: 'Neil-Young', pp. 158-61, London: Smith, Elder & Co (1912) (edited by Sir Sidney Lee); **Walker C.B.F., Collon, D.,** *'Hormuzd Rassam's excavations for the British Museum at Sippar in 1881-1882'*, *'Tell ed-Der III: Sounding at Abu Habbah (Sippar)'* (L. de Meyer, ed.), Leuven: Peeters (1980), pp. 93-114, pls 25-29; **Reade. J.E.,** in **Leichty, E.**,*'Tablets from Sippar'* London: British Museum Publications. **Reade, J.,** 'Hormuzd Rassam and his Discoveries', '*Iraq*' 55 (1993), pp. 39-62, including plates; **Chevalier, N.,** *'La recherche archéologique française au moyen-orient 1842-1947'*, Paris: Editions Recherche sur les Civilisations, (2002), p. 55. Useful archival material in Rassam, *Inventories and reports of Antiquities, 1878-1882* (ANE archives shelfmark 188.2). **Wiseman, D.J.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962).

Fig. 40. Modern impression of BM 89752.

This seal varies from most of the same style in that the individuals have legs. Their crude representation may suggest that the engraver had not yet been accustomed to this form of depiction and etched simple straight lines for legs to individuals he used to represent sitting. It could be construed that this was a transitional stage where individuals walked in a procession and no longer sat in a circle. The pots have been replaced by palm branches, possibly symbolising or representing Inanna. It could also suggest that while sitting ceremonies, as we have seen in the preceding seals, included pots, processions had palms. Strangely, these branches appear to be confused with pigtails or might it be that the lapicide got confused as he seemed to have been in his representation of the standing body. It would appear more reasonable that palm branches were held rather than hung from pigtails. However, it might be appropriate to introduce Adapa, (left) who was an *abgalu*, iconographically portrayed as a fish-man composite. The word *abgallu*, sage (**ab** = water, **gal** = great, **lu** = man, in Sumerian) might have survived with Nabateans, around the time of Jesus, as *apkallum*, used to describe a certain kind of priest. Then, it would not be unreasonable for these individuals to wear palm branches attached to their pigtails.

Fig. 41. Adapa, the *abgallu*.

BM 102421

Fig. 42. BM 102421.

Registration number: 1906,1110.11
BM number: 102421
Height: 21mm
Diameter: 20mm
Provenance: Iraq?
Materials: Dark green chlorite
Period/Culture: Jemdet Nasr

Acquisition: Acquired in 1906 from Élias Géjou. (see biography with 102411 above)

Bibliography: Frankfort, H., *Stratified Cylinder Seals from the Diyala Region*, LXXII, Chicago, University of Chicago Press, (1955). **Delaporte, L.J.**, *Catalogue des cylindres sceaux et pierres gravees de style oriental*, I-II, Paris, Hachette, (1920); **Wiseman, D.J.**, *Catalogue of the Western Asiatic Seals in the British Museum*: Cylinder Seals I: Uruk - Early Dynastic Periods, London, British Museum, (1962).

Fig. 43. Modern impression of BM 102421.

Fig. 44. Detail of a drum?

This seal shows a radical change in engraving techniques. The vertical bow-drill has almost vanished from the lapicide's tool set, replaced with the now 'modern' charged lap and later with lathe wheels and discs.

Fig. 45. Earliest depiction of the drilling of a cylinder seal, possibly, from a 5th dynasty Egyptian wall painting at Sakkarah, circa 2500 BC. Both the engraver and his assistant carry bags which might have contained drill, discs, tools and abrasives.

Fig. 46. Artisan using a bow drill, from a 6th dynasty wall painting. The left hand presses on the cap stone (see the arrow). The right hand wields the bow.

Fig. 47. Details of a pole and of a palm branch.

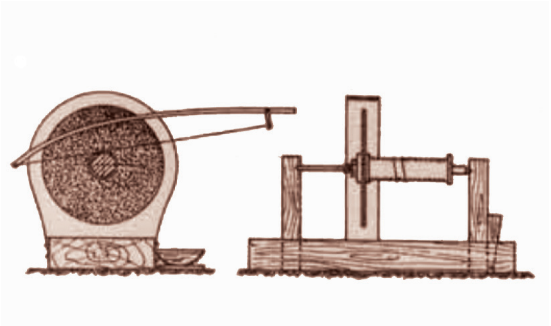


Fig. 48. Horizontal bow lathe with abrasive disk as still used in Iran. There are no remains of this type of lathe in Mesopotamia. However, it is doubtful that Sumerians would have used lathes which greatly differed from this model.

Notably, palm branches are no longer confused with pigtails, the body is much more realistically defined and legs no longer appear as unskilled additions to the sitting posture. The arms, however, remain in imploration position, at right angle of forearms, and pointing to the heavens, consistent with all seals of this period. A pole crowned by a small orb appears as a new object, perhaps separating subjects. Pots are more concisely defined in the shape of the 'balaĝ-drum' perhaps on account of their similarity with early pictograms. (See below) This seal confirms the use of percussion in rituals and therefore its association with such events. There are a significant number of 'balaĝ-songs' in the Sumerian corpus of hymnology.

Fig. 49. Deimel, A., Sign 41 in LAK *(Liste der Archaischen Keilschriftzeichen von Fara)* Ausgrabungen der Deutschen Orient-Gesellschaft in Fara und Abu Hatab, Liepzig, (1922), Pl. 6, 41.

BM 102471

Fig. 50. BM 102471.

Registration number: 1907,0610.7
BM number: 102471
Height: 21mm
Diameter: 20mm
Provenance: Iraq? / South West Iran?
Materials: Black marble
Period/Culture: Jemdet Nasr

Acquisition: Acquired in 1907 from William Talbot Ready (1857-1914) who had been employed by the British Museum as repairer and cleaner of antiquities, particularly in the Egyptian and Assyrian Department, until about 1884 after which he appears to have specialised as a dealer as his sales to the Museum begin in 1886. He specialised in classical coins and took over the company Rollin and Feuardent after the death of Francis Whelan. His brother Augustus P. Ready succeeded him as a restorer in the Museum, where he became part of the permanent staff in 1897; another brother, Charles Ready, also worked in the Museum in this capacity. All were sons of Robert Cooper Walpole Ready, the restorer, who joined the Museum in 1858/59. W.T. Ready had a single daughter, Marie Frances Talbot Ready.

Bibliography: Wilson, D.M., *'The British Museum: A History'*, London (2002), p.357, n.128; **Caygill, M.**, 'An enduring legacy', '*British Museum Magazine*' 51 (2005), p.55; **Frankfort, H.**,*Stratified Cylinder Seals from the Diyala Region*, LXXII, Chicago, University of Chicago Press, (1955). **Blurton, T.R.**, *The Enduring Image, Treasures from the British Museum, London*, The British Council, (1997); **Wiseman, D.J.**, *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962); **Frankfort, H.**, *Cylinder Seals: a documentary essay on the art and religion of the ancient Near East*, London, Macmillan, (1939).

Exhibitions: 2009-2010, Madrid, Canal de Isabel II, Treasures of the World's Cultures; 2009 1 May-20 Sep, Victoria, Royal BC Museum, Treasures of the World's Cultures; 2007 14 Sep-2 Dec, Hong Kong Museum of Art, Treasures of the World's Cultures; 2007 3 Feb-27 May, Taipei, National Palace Museum, Treasures of the World's Cultures; 2006 18 Mar-4 Jun, Beijing, Capital Museum, Treasures of the World's Cultures; 2005 27 Oct-2006 31 Jan, Haengso Museum, Keimyung University, Daegu, Treasures of the World's Cultures; 2005 25 Jul-8 Oct, Busan Museum, Treasures of the World's Cultures; 2005 11 Apr-10 Jul, Seoul Arts Centre, Treasures of the World's Cultures; 2004 26 Jun-29 Aug, Niigata Bandaijima Art Museum, Treasures of the World's Cultures; 2004 10 Apr-13 Jun, Fukuoka Art Museum, Treasures of the World's Cultures; 2004 17 Jan-28 Mar, Kobe City Museum, Treasures of the World's Cultures; 2003 18 Oct-14 Dec, Tokyo Metropolitan Art Museum, Treasures of the World's Cultures; 1998 9 Feb-3 May, India, Mumbai, Sir Caswasjee Jahangir Hall, The Enduring Image; 1997 13 Oct-1998 5 Jan, India, New Delhi, National Museum, The Enduring Image.

Fig. 51. Modern impression of BM 102471.

The next seals, concluding the Jemdet Nasr selection from the collections at the British Museum, are a third development of style for this period. Here, scenes are framed. Each section would have had its own significance. It is unfortunate that no text having survived has given any explanation. The framing was made possible because of considerable improvements of disk lathes which would have allowed for precision engraving as is shown below. However, this precision has not been echoed with the subjects and objects which remain as imprecise as they had been when this style was developed in the early Jemdet Nasr period. The arms have grown hands which give a little more expression to the individuals.

Fig. 52. Detail of framing showing the regularity of the engraving the regularity of which implies the usage of a lathe.

Fig. 53. Hands have been added to arms improving the expression that the artist wanted to translate.

BM 102538

Fig. 54. BM 102538.

Registration number: 1908,0411.46
BM number: 102538
Height: 18mm
Diameter: 18mm
Provenance: Iraq / South West Iran
Materials: Grey/green limestone
Period/Culture: Jemdet Nasr

Acquired in: 1908 from Élias Géjou.

Bibliography: Frankfort, H., *Stratified Cylinder Seals from the Diyala Region*, LXXII, Chicago, University of Chicago Press, (1955); **Wiseman, D.J.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962); **Delaporte, L.J.,** *Catalogue des cylindres sceaux et pierres gravees de style oriental*, I-II, Paris, Hachette, (1920).

Fig. 55. BM 102538.

BM 103011

Fig. 56. BM 103011.

Registration number: 1909,0510.6
BM number: 103011
Period/Culture: Jemdet Nasr
Height: 22mm
Diameter: 22mm

Acquired in:1906 from J.J. Naaman who was a dealer active in 1914.

Bibliography: Frankfort, H., *Cylinder Seals from the Diyala Region*, LXXII, Chicago, University of Chicago Press, (1955); **Wiseman, D.J.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods,* London, British Museum, (1962).

Fig. 57. Modern impression of BM 103011.

The left panel would represent a vessel in a kiln. It might also symbolise the womb from which the 'holy' pot would be born. Note the handles which would be ropes rather than pottery. The central frame has a typical subject with an object, symbol of worship in front of her/him. Below the symbol is the 'ladder' which appeared in other seals. Three pot-like objects rest on the base of the frame. It is contended that they would be bowl-drums. The smaller round shapes would perhaps be clay rattles which are well attested at that period. The panel to the right is more or less the inversion of the central panel. Thus the hemispheric objects in the previous scenes would also be bowl drums that the engraver would have represented from above as his engraving tools did not allow for a side representation. The invention of the disk lathe would have allowed for more shapes to be engraved.

Fig. 59. Panel above, upside down.

Fig. 58. African bowl-drum.

Fig. 60. Clay rattles from Ur. BM 116869. See Dumbrill, R., Idiophones of the Ancient Near East, (London 2010), p. 9.

EARLY DYNASTIC PERIOD

The Early Dynastic Period followed the Jemdet Nasr. It distinguished itself by a radical cultural change which can be dated to around 2900 BC when started ED I (Early Dynastic I period). Clay tablets found in archaeological context did not give any names of rulers for that time. During ED II, seal cylinders became wider than those from ED I, and represented scenes with banquets, some with harps, possibly depicting commercial transactions, and animal fights. The most illustrious and legendary King of Uruk, Gilgamesh, ruled during the Second Dynasty. However, most texts from that time are not yet satisfactorily deciphered. Later texts acknowledge some rulers of ED II. It is during ED IIIa, also known as *Fara Period*, that the syllabic script is first attested. The human speech was intelligibly inscribed on fresh clay tablets around 2600 BC, after some six centuries of trial and error, and now lends itself to unchallenged translations. A series of shorter periods follows and are characterized by the domination of priests. City states, such as Kish, Uruk, Ur, Adab, Akshak engaged in feuds with each other, as well as against foreigners from Awan, Hamazu, Mari until the decisive Akkadian domination of the mighty Sargon.

The concept of deity was a confusion of totemisn, animism and invisibility. Thus **ENLIL** was at times the ethereal 'powerful wind' and at others, the totemistic 'wild bull'.

This statue of a female individual was found in the mud plasterings of Inanna's temple at Nippur. This explains why it has survived for millennia, as have many others. Her dress made of plain fabric typically hangs over her left shoulder. Some inlays of shell and lapis lazuli remain in place, in her left eye. These statuettes were intentionally buried in the masonry so that the personage they represented remained undisturbed in time, as the statue worshipped in the stead of the worshipper.

Fig. 61. Standing female figure with clasped hands. Early Dynastic IIIA, ca. 2600 - 2500 BC. Nippur, Inanna temple, Level VIIB. Limestone, shell, and lapis lazuli. Height 24.9cm. Rogers Fund, 1962 (62.70.2)

Fig. 62. Standing male worshipper, 2750-2600 BC. Early Dynastic period II. Excavated at Tell Asmar (ancient Eshnunna), central Mesopotamia. Alabaster (gypsum), shell, black limestone. Height 29.5cm. Fletcher Fund, by exchange, 1940 (40.156).

Fig. 63. Votive relief of Ur-Nanshe, king of Lagash, Early Dynastic III (2550-2500 BC). Height 39cm, width 46.5cm. Excavated in 1888 by Ernest de Sarzec at the site of Girsu (modern city of Telloh, Iraq). Musée du Louvre, Paris.

EARLY DYNASTIC (2900-2300 BC)

BM 125527

Fig. 64. BM 125527.

Registration number: 1936,1216.156
BM number: 125572
Period/Culture: Early Dynastic II (?)/Early Dynastic (Egypt) ?
Height: 29.5mm
Diameter: 15mm

Found at: Chagar Bazar, Al-Hasakah, Syria, in (1936). Excavated by Professor Sir Max Edgar Lucien Mallowan.

Bibliography: Mallowan, M.E.L., (1937)a pl.XII:4

Fig. 65. Modern impression of BM 125527.

It is impossible to say if this seal had anything to do with music. However, the rhythmic intention is obvious. Furthermore it is punctuated with dots judiciously placed in between the dancing animals. This suggest frenetic agitation, perhaps under the influence of some hallucinogenic drug.

BM 129097

Fig. 66. BM 129097.

Museum number:129097
BM number: 129097
Registration number:1937,1009.7
Culture/period: Early Dynastic II (?) Early Dynastic III (?)
Materials: limestone (?)
Height: 37mm
Diameter: 31mm

Purchased from: Mme Luiz de Sousa Barbosa in 1937. Her letterhead as 'Objets de Fouille de haute classe: Sumer - Chaldee - Assyrie' and correspondence from Smith to the National Art Collections Fund indicates that she was a dealer in Mesopotamian antiquities. She sold three small groups of Mesopotamian antiquities to the British Museum in 1936, 1937 and 1938. Her first name was Helene but she is also known is the records as Madame Luiz de Sousa Barbosa, after her husband.

Bibliography: Smith, S., 3 Cylinder seals and scarabs, *British Museum Quarterly,* 12, London, British Museum, (1938); **Wiseman, D. J.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962).

Fig. 67. Modern impression of BM 129097.

This seal, as with the previous, seems to display animated dancing. A kneeling subject appears to be holding a musical bow over his head. This would be a rare representation of this primitive musical instrument. Some argue that the bow is not an instrument but only an architectural feature, which is quite possible. A similar instrument is represented with BM 122127 in this volume. However, the presence of a musical bow in this contexts would appear quite appropriate. Such bows have been illustrated, some held over the head in Neolithic representations at Çatal Hüyük, Turkey, and from Levantine Spain.

Fig. 68. Detail of festive scene from Çatal Hüyük showing five dancers with bow harps. Note that the bows are much smaller than hunting bows and that there are no visible arrows. The attitudes of the dancers differentiates them from hunters.

Fig. 69. Detail of BM 129097. Hypothetical bow-harp held over the head by the musician(?)

Fig. 70. Hunters holding their bows over their heads and dancing in celebration. The vertical implements are arrows. This would be an intermediate period when hunting bows were raised in this fashion for celebration after the hunt or victory over the enemies. It is reasonable to assume that these manifestations would have implied some form of collective singing to the rhythm of their marching.

Fig. 71. Detail of four dancers. Here again, unity in movement suggests collective rhythm and singing.

Fig. 72. Detail of two dancers.

Fig. 73. Detail of a dancer.

The subject depicted above is complex and could be interpreted in too many ways, none of which making much sense. The general impressionist mood of the whole seal is that of a psychedelic trance where reality is unimportant.

BM 131690

Fig. 74a. BM 131690.

Fig. 74b. BM 131690.

BM number: 131690
Registration number:1954,0510.1
Culture/period: Early Dynastic III
Date: 2650 - 2350 BC
Excavated at: Chagar Bazar, al-Hasakah, Syria
Height: 41.2mm
Length: 60.3mm

Inscriptions and transliteration: *i(ban) ma i mi-at bo el-tak-ki.* **Comment:** Records that the contents of the bag to which the label was attached, were 5 sutu of figs, and that the recipient expects a further 160 items.

Excavated by: Professor Sir Max Edgar Lucien Mallowan and acquired in 1954.

Bibliography: Mallowan, M.E.L., Excavations at Tall Chagar Bazar, and an archaeological survey of the Habur region. Second campaign, Iraq, 4, London, *British School of Archaeology in Iraq*, (1937).

This is a seal impression on a clay label. The scene represents musicians during a banquet, probably, with a monumental harp resting on a foot which is the prolongation of the soundbox of the instrument. It is possible that this would have been the **KAB.ZÀ.MÍ**. ((**KAB** or **ḪÚB**[1]) = foot, and **ZÀ.MÍ**, = harp.) The Chicago Assyrian Dictionary says that the *sammû* (Akkadian) = **ZÀ.MÍ** (Sumerian)[2] is a lyre. However, there is still no evidence that it was either a lyre or a harp, although I am in favour of it being a harp for the reason that it is an instrument mentioned in a Old Babylonian text of music theory where this instrument, fitted with nine strings, was used as a model for its tuning in different sets and that lyres, at that time were seldom used and did not have as many strings as harps. The word *sammû* appears in Old Babylonian and later. It is a Sumerian loanword. This large instrument would have been monostructural which means that the infrastructure of the soundbox was made of the same log of wood, and fitted with a raw-hide soundboard.

Fig. 75. Detail of original impression of BM 131690.

Fig. 76. Detail of original impression of BM 131690.

The obtuse angle of the string plan, suggests an anhemitonic tuning. (which means that there were no semitones in the scale. Note that the musicians wear their hair in the typical Jemdet Nasr pigtail style, though more realistically depicted.

1. Labat, R., and Malbran-Labat, F., *Manuel d'épigraphie akkadienne*, Geuthner, Paris, 6e édition, (1994), Pls. 78-9, No. 88.

2. Chicago Assyrian Dictionary (CAD), of the Oriental Institute of the University of Chicago. Brinkman; Civil; Gelb; Oppenheim and Reiner, eds. Vol. s, published by the Oriental Institute, Chicago, Illinois, U.S.A. and J.J. Augustin Verlagsbuchandlung, Glückstadt, Germany, (1984), pp118-9, where *sammû* it is unequivocally translated as 'lyre' without evidence for it.

BM 129600

Fig. 77. BM 129600.

BM number: 129600
Culture/period: Early Dynastic II, Cypriot (?), Akkadian (?)
Date: 2400 - 2200 BC
Materials: marble (?)alabaster (?)
Height: 26mm
Diameter: 17mm

Acquired: with contribution from the Art Fund, and purchased in 1945 from Charles Alexander Carnegie.

Bibliography: Carnegie, H., (ed), *Catalogue of the Collection of Antique Gems formed by James Ninth Earl of Southesk K.T, London*, 1908; **Wiseman, D.J.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals I: Uruk - Early Dynastic Periods*, London, British Museum, (1962).

Fig. 78. Modern impression of BM 129600.. Modern impression of BM 129600.

This seal retains typical depictions of heads and clothing favoured during Early Dynastic periods. A central subject is holding a medium size probably monoxilous harp with two, perhaps three strings. The string plan is obtuse and as such is in agreement with the practice at that period. It suggests an anhemitonic/isotonic tuning. To the left of the harpist are two other individuals, possibly a male and a female on account of their different attire. They might be holding hands or clappers. The left individual is sitting. To the right, a personage is sitting on a chair. It could be a queen or a goddess for the reason that a reed or flowers, perhaps a *shugurra*, stands behind her as symbol. This seal confirms the usage of this type of harp at that period and therefore constitutes a chronological marker. A pot, possibly, rests on the floor, under the harp, but it could be a basket. When the object which we have identified as a harp is read in context, it makes little doubt that it is an instrument. However, taken out of context, and presented upside down as in figure 76 to the right, it is no longer a harp but looks like a palm branch. This exercise shows that it is often difficult to give an infallible identification of objects depicted on seals, generally. However, the representation of this type of harp, as in other instances confirms, as far as we know, that the object, is more likely to be a harp.

Fig. 79. Detail of BM 129600.

A certain number of Sumerian signs, whether pictographic, proto-cuneiform or cuneiform, constitute an important source for the identification of musical instruments. However, some of these signs have lost their original meaning which has often shifted in the course of time to mean something different, sometimes through metaphor, metonymy, synecdoche, and, or for various linguistic mutations.

Other factors intervened such as a five thousand year old taxonomy differing greatly from ours. The little information we can extrapolate from the study of semasiology shows that string instruments were thought as membranophones and were therefore classified along with others such as the many instruments of the drum family.

However some of the string instruments, even if we are quite confident that their soundboards were made of rawhide, were prefixed with the determinative for wood, **'giš'** but other determinatives such as **'kuš'** for 'leather', and **'urudu'** for 'copper' are also found, implying the usage of these materials in their making. Thus, some instruments having rawhide soundboards did not necessarily have the pre-positioned determinative for 'leather' used to classify them.

Essentially a lyre, a harp, or a lute were, in the mind of Sumerians, drums fitted with strings. This taxonomy would be unsuitable for our purposes where only the banjo, as string instrument is the only one having a membrane soundboard, although nowadays made of plastic rather than rawhide.

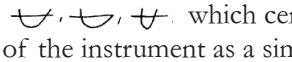
This structure persists with the Moroccan bendir which has gut strings, or snares, under its membrane, and of course with the snare drum, also called side drum, of a traditional drum kit.

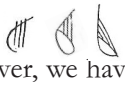
The following signs:

were probably named **BALAG̃.** We find them later written with the cuneiform sign voiced **'dúb-dúb'**, obviously an onomatopoeia for a bass string instrument. Anyone wanting to imitate the double bass would mimic its sounds with these 'dub-dubs' which otherwise would be inappropriate for a harp, or for drums. Therefore we may assume that the **BALAG̃** would have been a bass string-type instrument. However, the word **BALAG̃** is not Sumerian but we might find its origins in the Semitic family of languages as the word survives in Arabic.

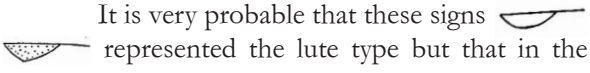
The next sign would certainly have found its sources in the typical zoomorphic Sumerian lyre, an extant example of which being the Silver Lyre excavated by Sir Leonard Woolley in the late twenties, currently on exhibition at the British Museum and replicated by the present author[1].

Fig. 80. The Silver Lyre of Ur photographed in 1948 before its collapsed because of heat in the Summer of the same year.

The sign which would have identified the lyre above would have been: with earlier forms such as  which certainly revealed the origins of the instrument as a simple musical bow.

These three signs  originate from Fara and are harps. However, we have no name for them as they have not been found in any bilingual Sumerian-Akkadian lexical texts. I would advance that they were called **BAN.TUR**, two Sumerian words, meaning 'bow' and 'small', respectively that we find in Ancient Egyptian as *bnt* = harp.

This sign was mainly used ro represent the soundbox of string instruments while this other one was specifically used for soundboxes of percussion instruments, the broken lines projecting from the conical shape distinguishing percussion from the softer tone of string instruments. This shared conical shape confirmed that strings and drums were one and the same instrument family.

It is very probable that these signs  represented the lute type but that in the course of time and with its stylisation in cuneiform writing, its original name, vocalisation and meaning

would have radically diverged from the original intention. This is the case with the cuneiform strylisation for **BALAG̃** which we find with the following graphies: finally to become Akkadian **BALAG̃** = dub.

Fig. 81. The author, (left) with museum technician Jerry Baker, taking the Silver Lyre away for observation.

AKKADIAN PERIOD

The Early Dynastic Period in Southern Mesopotamia (Sumer) spread from about 2900 to 2350 BC. During this period, the land was divided between the dynastic rulers of rivalling city-states. The Akkadian Period named after the city of Agade or Akkad, (ca. 2350 - 2150 BC) immediately followed the Early Dynastic Period. The Semitic dynasties united the region, bringing rival Sumerian cities under their control. The city of Agade has not been located yet, but it was probably founded before the time of Sargon (ca. 2340 - 2285 BC), who became the first king of the dynasty. It is said that Sargon had been the 'cup bearer' of the king of Kish, at a time when Kish was a prominent city state of the northern part of Sumer. Sargon is a modern rendering of Sharru-ken, meaning 'the king is legitimate'. Soon Sargon took over and conquered the whole of southern Mesopotamia and extended his kingdom to the East and to the North.

Rimush and Manishtushu, two of Sargon's sons succeeded him and reinforced control over most of the empire. The Akkadian Empire reached its peak under Naram-Sin (ca. 2260 - 2223 BC), who led campaigns against powerful northern states, probably up to Ebla. At that time, the empire reached as far as Anatolia in the north, inner Iran in the east, Arabia in the south, and the Mediterranean in the west.

The Akkadian Empire even influenced the arts which at the begining was no more than the continuation of Ealy Dynastic trends. As the empire grew, the arts became characterised by some form of naturalism especially noticeable in monumental stone reliefs. This trend also found its way into seal iconography where imaginative scenes between man and the divine typified the period.

Shar-kali-sharri, (ca. 2223 - 2198 BC) who was Naram-Sin's successor kept the empire under control although there were some power struggle. Towards the end of the Akkadian Period, some city state rulers became independent and progressively, under the reigns of the last kings of Agade, Dudu and Shu-Turul, all that remained of the empire was the city and its suburbs.

AKKADIAN (2300-2200 BC)

BM 28806

Fig. 82. BM 28806.

Registration number: 1898,1013.139
BM number: 28806
Materials: serpentine
Date: 2400 - 2200BC
Period/Culture: Akkadian
Height: 28mm
Diameter: 16mm

Acquired in: 1898 and purchased from Nicolaos Davourgicas.

Bibliography: Boehmer, R.M., *Die Entwicklung der Glyptik wahrend der Akkad-Zeit*, 4, Berlin, (1965); **Collon, D.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II, London*, British Museum Publications, (1982); **Rimmer, J.,** *Ancient musical instruments of Western Asia*, London, British Museum, (1969).

Fig. 83. Modern impression of BM 28806.

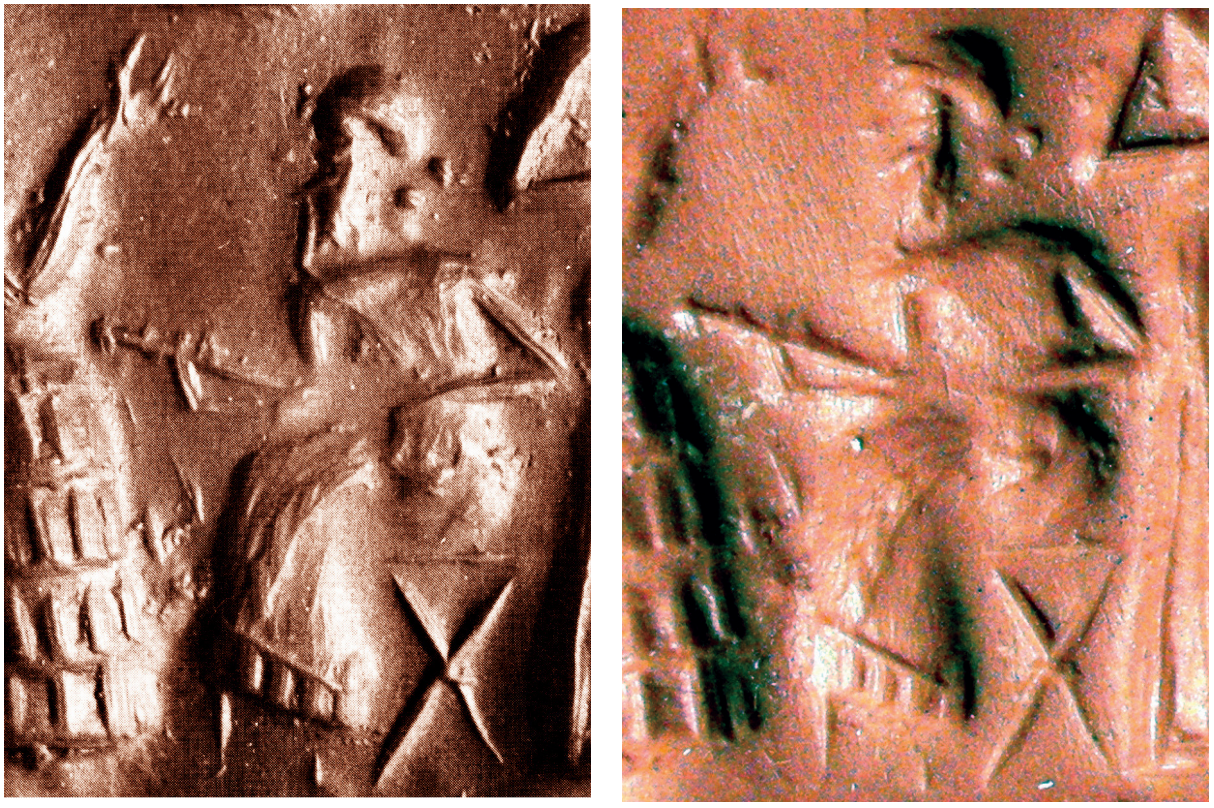


Fig. 84. Two photographs with different lighting angle, left enhancing what would be the soundbox of the instrument, and right with another lighting angle where the soundbox is less obvious. Details from BM 28806.

Akkadian seals are among the most descriptive. Here, a god with his left hand raised, under a crescent moon, sits facing a seated water-god with his right hand raised. Both are bearded, wear flounced robes and have identical horned head-dresses. They sit on similar thrones. The water-god is identified by double streams flowing from a vessel with three fish leaping from it. Between the two subjects is a dwarf bearded musician, perhaps intentionally depicted smaller than the gods and the attendant, to indicate his lower status. He wears a fringed robe and sits on a stool facing the god to the left. The double-faced attendant to the water-god wears a striped skirt and raises his left hand. A large pot stands in the air, at head level, between the two gods.

The scene described on this seal would have represented a mythological tale well known to contemporary Akkadians. However, the story has not reached us yet in the corpus of mythology. There are many seal depictions the meaning of which is lost for lack of textual evidence and as Assyriologists progress with their translations, more will be understood.

The instrument that the musician is holding had been generally interpreted as a long neck lute type, unlike the Uruk instrument depicted on seal BM 141632 where a soundbox cannot be clearly seen. However, the soundbox on the present seal is not clearly defined either and depends maily on the lighting of the impression. The identification of the instrument as a long-neck lute rests solely on the body posture which suggests that the instrument would be a long-neck lute, rather than it reveals the soundbox of the instrument itself. The part which is said to be the soundbox could also be interpreted as a belt purse. However, there are also molded clay terracotta plaques (Figs 74, 75 and 76) of the same period which clearly show soundboxes. Therefore it would reasonable to assume, after all, that the instrument represented was a long neck lute type.

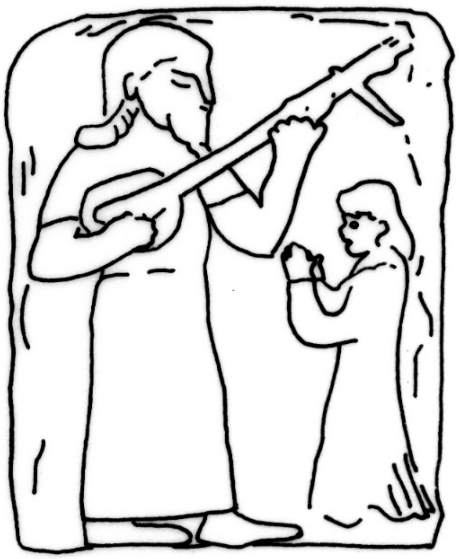


Fig. 85. Uruk stamped terracotta, 3000 - 2600 BC. Dumbrill, *The Archaeomusicology of the Ancinet Near East*, p. 322, Pl.6, 255.

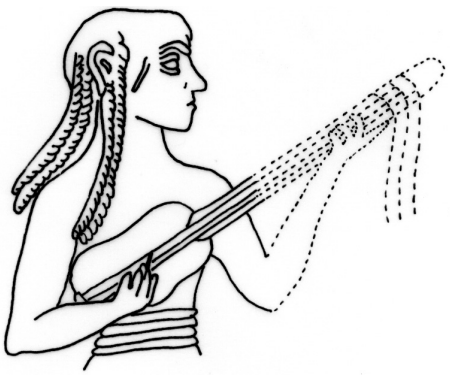


Fig. 86. Stamped terracotta from Ischali. 2300 - 0000. Dumbrill, *The Archaeomusicology of the Ancinet Near East*, p.327, Pl.12, 229.

Figure 87. Stamped terracotta from Ischali. 2300 - 2000. Dumbrill, *The Archaeomusicology of the Ancinet Near East*, p.328, Pl.15, 230.

BM 89096

Fig. 88. BM 89096.

BM number: 89096
Culture/period: Akkadian
Date: 2400 - 2200 BC
Materials: diorite
Height: 38mm
Diameter: 24mm
Inscription /Transliteration: UR.UR /nar. PN, singer.

Acquired: in 1888 by the British Museum from Sir Ernest A. T. Wallis Budge as a result of his second mission to Egypt and Mesopotamia in 1887-1888; the mission was intended to investigate the 'leakage' of tablets from sites supposedly guarded on behalf of the British Museum.

Bibliography: Boehmer, R.M., *Die Entwicklung der Glyptik wahrend der Akkad-Zeit*, 4, Berlin, (1965); **Collon, D.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods*, II, London, British Museum Publications, (1982); **Leichty, E.,**; **Finkelstein, J.J.**; **Walker, C.B.F.**, *Catalogue of the Babylonian Tablets in the British Museum, volume VIII: Tablets from Sippar* 3, London, British Museum, (1988); **Rimmer, J.,** *Ancient musical instruments of Western Asia*, London, British Museum, (1969).

Fig. 89. Modern impression of BM 89096.

Fig. 90. Detail of BM 89096.

This seal is a rare occurrence where its owner may be the musician with his name and profession engraved and reading 'Urur, musician'. It is very probable that this seal was bought 'off the shelf' and that the lapicide would have engraved the client's name. Seals would have been expensive. Buying one already engraved and then filling the cartouche would have been a cheaper option than ordering a completely new seal. Many of them were reworked for new owners and probably there might have been a flourishing trade for their retailing as the ownership of a seal would have lifted the status of the owner, considerably, even if, him, or her, could not probably read any inscription etched on it.

BM 102436

Fig. 91. BM 89096.

BM number: 102436
Registration number: 1906,1110.26
Culture/period: Akkadian
Date: 2400 - 2200 BC
Materials: green stone
Height: 28mm
Diameter: 16mm

Acquired: in 1906 from Élias Géjou.

Bibliography: Collon, D., (1982)a 162; 982a pl.XXIII

Fig. 92. Modern impression of BM 102436.

A sun-god with rays, holding a serrated sword in his left hand, is seated on a throne resting on a double level estrade. A cultic drum/altar is placed in front of him. A stellar disc is seen above the drum. Two bearded gods face him. The first one wears a pleated robe and raises his right arm towards the sun-god. The other bearded god has a long curl of hair hanging down to his shoulders and raises his left arm. His robe is fringed. Another bearded individual follows them. He wears a fringed robe and raises his right arm.

Mostly, these drums are interpreted as altars. A certain amount of them have survived, from the tombs of Ur, Kish, etc. They are made of fired clay and are often decorated with slips of various shades and resemble the modern Arabian *darabuka* goblet drum (also chalice drum, darbuka, debuka, doumbek, dumbec, dumbeg, dumbelek, toumperleki, or tablah). It is possible that these altars were drums which were used both as percussion instruments and as offering tables. However. no cuneiform text has satisfactorily explained this duality. It is also possible that the drum remained metaphorical and was used as an altar, in its shape.

Neither Sumerian, nor Akkadian has provided a term with some homophony with the Arabic *darabuka*. Only one word, Sumerian **adapa,** Akkadian *adapu* which is close enough to the *duff*, *(ad-duff)* the square shallow frame drum mostly played by women in Fez, and by Ahwach musicians of Southern Morocco, at certain festivals and which must not be confused with the *tar* or with the *bendir* which are both round frame snare drums.

The Chicago Assyrian Dictionary has: *adapu:* 1) A musical instrument. 2) A song accompanied by that instrument. It is a Sumerian loan word: **urudu.a.da.pà** = *a-da-pu* = *ma-zu-ú* where Sumerian **urudu**, a determinative meaning copper which indicates that these instruments would also have been made of copper, or had some copper features. For the *adapa* song we read: 5 *zamārū . . . a-da-pa šu-me-ra* = five Sumerian *adapa* songs.

BM 102511

Fig, 93. BM 102511.

BM number: 102511
Registration number: 1908,041.19
Culture/period: Akkadian
Date: 2400 - 2200 BC
Materials: serpentine
Height: 30mm
Diameter: 27.5mm

Acquired: From Élias Géjou in 1908.

Bibliography: Boehmer, R.M., *Die Entwicklung der Glyptik wahrend der Akkad-Zeit*, 4, Berlin, (1965); **Collon, D.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II*, London, British Museum Publications, (1982).

Fig. 94. Modern impression of BM 102511.

This seal is made from dark green serpentine. It depicts a bearded individual wearing a flounced robe and a kind of béret. He stands with his left hand raised in a defensive or refusal gesture. In front of him is a snake-god holding a cup in his right hand and has rays rising from his right shoulder. A drum-altar stands between them and from which flames seem to rise. Directly above is a moon crescent. Behind the snake god is a door or a gate possibly the entrance to the god's dwelling. The god seems to offer the cup to the individual who appears reluctant to accept it and looks fearful. Would the cup contain poison?

Fig. 95. Detail of the drum altar in BM 102511.

BM 102521

Fig. 96. BM 102521.

BM number: 102521
Registration number: 1908,0411.29
Culture/period: Akkadian
Date: 2400 - 2200 BC
Materials: aragonite
Height: 30mm
Diameter: 16mm

Acquired: From Élias Géjou in 1908.

Bibliography: Boehmer, R.M., *Die Entwicklung der Glyptik wahrend der Akkad-Zeit,* 4, Berlin, (1965); **Collon, D.,** Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II, London, British Museum Publications, (1982).

Fig. 97. Modern impression of BM 102521.

Made of aragonite, or shell, the seal depicts a figure wearing a fringed robe and standing with his left hand raised. He is in front of a snake-god holding a branch in his right hand. Between them stands a drum altar. A crescent moon is placed to the right of the drum altar. There is a stylised palm tree behind the snake god. This seal is badly worn and appears to have been re-cut in earlier times as traces of shapes persist in the background.

Figure 98. Detail of a drum altar, BM 102521.

BM 103329

Fig. 99. BM 103329.

BM number: 103329
Registration number: 1911,0408.19
Culture/period: Akkadian
Date: 2400 - 2200 BC
Materials: lapis lazuli
Height: 21mm
Diameter: 13mm

Acquired: From I Élias Géjou in 1911.

Bibliography: Borowski E., 'Introduction', in J.G. Westenholz (ed.), 'Seals and Sealing in the Ancient Near East. Proceedings of the Symposium held on September 2, 1993, Jerusalem, Israel' (Bible Lands Museum, Jerusalem), pp. 11-22 (esp. pp. 13-14); **Collon, D.**, *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II*, London, British Museum Publications, (1982).

Fig. 100. Modern impression of BM 103329.

Lapis lazuli cylinder seal. To the left, a goddess stands with both hands raised. She wears a striped robe. Her hair curls down her back. She is behind a female worshipper who is wearing a fringed robe, her hair in a loop. She is holding an offering of wool which she places on (or lifts from) a drum altar which is placed just in front of a sitting war-goddess wearing a multiple-horned head-dress. Five weapons, probably maces, rise from her shoulders. A crescent of the moon would identify the war-goddess, or would qualify the offering.

Fig. 101. Detail of drum altar, BM 102521.

BM 120544

Fig. 102. BM 120544.

BM number: 120544
Registration number: 1928,1009.27
Culture/period: Akkadian, from the royal cemetery of Ur
Date: 2400 - 2200 BC
Materials: serpentine with bronze and bitumen
Height: 40mm
Diameter: 28mm

Acquired: Objects allotted to the British Museum from the Ur excavations, season 1926-1927. Acquired in 1928.

Bibliography: Boehmer, R.M., *Die Entwicklung der Glyptik wahrend der Akkad-Zeit*, 4, Berlin, (1965); **Collon, D.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II*, London, BMP, 1982; Woolley, C.L., *The Royal Cemetery, II*, London, British Museum, (1934).

Fig. 103. Modern impression of BM 103329.

This seal is made of black veined serpentine and has ornamental bronze caps, one of them broken.

The scene represents a bearded god with a fringed robe, wearing a horned hat and has his hair in a curl down his back. He is seated on a throne. He raises his left hand. Three individuals stand in front of him. The first is clean-shaven and wears a long, fringed skirt and carries a ritual drum. The second is a female with her hair looped at the back. She wears a long fringed robe and carries a small cup in her right hand and a rectangular object in her left. Right behind her stands a bearded individual wearing a long fringed skirt. He holds a goat with his left arm and (possibly) a hare he holds by the ears with his right hand.

Fig. 104. Detail of drum altar, BM 103329.

BM 122127

Fig. 105. BM 122127.

BM number: 122127
Registration number: 1930,1015.3
Culture/period: Akkadian, from the royal cemetery of Ur
Date: 2400 - 2200 BC
Materials: jasper
Height: 20mm
Diameter: 13mm

Acquired: Purchased from Joseph Dumbalky in 1930.

Bibliography: Boehmer, R.M., Die Entwicklung der Glyptik wahrend der Akkad-Zeit, 4, Berlin, (1965); **Collon, D.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II*, London, BMP, (1982); **Gadd, C.J.,** Babylonian cylinder-seals, *British Museum Quarterly,* V, 3, London, British Museum Publications, (1930).

Fig. 106. Modern impression of BM 122127.

This seal is made of green jasper. It was said to represent a battle of the gods where two of them, bearded with horned hats and wearing long kilts, facing each other and holding the same staff and each other's hat by one of its horns. However, the scene might also represent a celebration dance of the gods. To the right, two other gods also holding the same staff, the furthest to the right holding a mace. In the middle of the scene a naked bearded individual holds a musical bow, hitting its string with a stick. Below the bow is a strange form which cannot be clearly identified and which was probably the reason for the celebration dance.

Fig. 107. Detail of a dancer with a musical bow from Çatal Hüyük.

Fig. 108. Detail of musical bow player in BM 103329.

BM 123579

Fig. 109. BM 123579.

BM number: 123579
Registration number: 1935,0112.46
Culture/period: Akkadian, Ur, Sargonid Grave 85
Date: 2400 - 2200 BC
Materials: black serpentine
Height: 2.85 centimetres
Diameter: 1.7 centimetres

Acquired: Division of Finds Department of Antiquities of Iraq from the excavation season 1933-1934.. Excavated by Sir Charles Leonard Woolley and acquired in 1935.

Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II,* London, British Museum Publications, (1982)

Fig. 110. Modern impression of BM 123579.

Black serpentine cylinder seal. Two gazelles stand on their hind legs turn their heads back looking at lions which attack them. A symbolic tree-of-life stands in the middle.

This scene, which is beautifully symmetrical, expresses the importance of epicentric patterns in Mesopotamian concepts. The tree which is in the middle of the scene has seven branches which might express a symmetric heptatonic musical system, but it is also the epicentric symbol of a pentatonic symmetry represented by one gazelle and one lion on each side. Such arrangements are very frequent in Mesopotamian art as well as in music texts of theory where a generative system gravitates around a central pitch. This is particularly well expressed in a cuneiform clay tablet, *nabnitu* XXXII[1].

1. Dumbrill, R., *The Archaeomusicology of the Ancient Near East*, Trafford, (2005), pp. 27-36.

BM 128597

Fig.111. BM 128597.

BM number: 128597
Registration number: 1935,1015.4
Culture/period: Akkadian, Ur, Sargonid Grave 85
Date: 2400 - 2200 BC
Materials: black serpentine
Height: 34mm
Diameter: 20.5mm

Acquired: Donated by Edmund Sykes Lamplough in Memory of Williamson Lamplough in 1935.

Bibliography: Boehmer, R.M., Die Entwicklung der Glyptik wahrend der Akkad-Zeit, 4, Berlin, (1965); **Collon, D.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II,* London, British Museum Publications, (1982).

Fig. 112. Modern impression of BM 128597.

Black serpentine cylinder seal. A bearded figure wearing a flounced skirt and a beret stands before the snake-god with his left hand raised. The snake-god is holding a branch with his right hand. Between them is an altar drum on top of which is a shallow cup from which smoke (?) rises, probably an incense burner. There is a star above the altar. There is a gate just behind the snake-god, and behind the gate grows a tree.

Fig. 113. Detail of altar drum in BM 128597.

BM 129479

Fig. 114. BM 129479.

BM number: 129479
Registration number: 1945,1013.23
Culture/period: Akkadian, Ur, Royal Cemetery
Date: 2800 BC(?)
Materials: serpentine
Height: 34mm
Diameter: 20.5mm

Acquired: in 1945. With contribution from the Art Fund. Purchased from Charles Alexander Carnegie, 11th Earl of Southesk. Thomas Bateman was the previous owner. Obtained from the Bateman Collection in 1893.

Bibliography: Boehmer, R.M., Die Entwicklung der Glyptik wahrend der Akkad-Zeit, 4, Berlin, (1965); **Collon, D.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II,* London, British Museum Publications, (1982).

Fig. 115. Modern impression of BM 129479.

Green serpentine cylinder seal. The scene revolves around the central figure of a bearded god facing to the right. He is wearing a kind of turban, has a lion's pelt thrown over his shoulders with the head of the lion hanging onto the god's chest. The god wears sandals. Three straight vegetal offshoots stem from each of his shoulders. He holds a burgeoning branch in the crook of his left arm with his forearm held horizontally across his chest, his hand holding what could be two bulbs with their leaves hanging down, perhaps fertility symbols. His right arm runs straight along his body with his hand holding horizontally what could be a club or a mace. A goddess stands in front of him. She wears a robe vertically striped in several layers and holds her right arm towards the god, hand open. He right shoulder is uncovered. Her left arm is held almost horizontally across her chest with her hand holding two sticks which cannot be safely indentified. From her shoulders spring straight vegetal offshoots, four from the left and three from the right. The goddess wears a horned beret with its two horns scrolling on top of it. He hair flows freely to the back of her neck and down to her shoulders. Between the god and the goddess, a goat or a ram leaps toward the god, perhaps wanting to eat the bulbous plants held by the god. Just behind the goddess runs an inscription, up to the height of her waist. The text reads: *i-li-esh-dar* / **dub-sar**, which translates as: Illi-Eshtar, scribe. It is therefore safe to assume that the seal was the property of a scribe. To the left of the god, turning her back to him is another goddess wearing a double-horned hat. Her hair is in two long braids running down her neck and on her shoulders. Her dress is pleated, probably belted at the waist and advantageously enhances her breasts, the right shoulder uncovered. Her right forearm is held vertically, with her hand open perhaps holding a treat to the animal facing her. Her left forearm is held horizontally with her hand holding a spherical vase by its wide-spouted neck from which two lines representing water, or some liquid, flow down to the ground. Water also flows from her left shoulder, framing her body. She appears to be barefoot. To her left is a servant, also facing to the left. He wears a fringed dress with both shoulders covered. His right forearm is held in the same manner as the goddess standing behind him, and so is his left forearm with his hand holding the hind legs of a live antelope the chest of which resting on his left shoulder. To the far left (and far right) stands full face goddess wearing a flounced robe. Weapons rise from both her shoulders qualifying her as a war goddess. She wears a multi-horned beret. Loops of hair flow on her chest. Her right hand holds a dagger pointing down while her right forearm is raised above an altar drum on which lies a looped rope.

UR III PERIOD

During the XXI[st] century BC, flourished the Third Dynasty of Ur, more commonly known as UR III. Most of Mesopotamia as well as Oriental Iran was under an empire which would spread to Sumer, Babylon, the Central Tigris and part of the Zagros and Elam.

This period is often known as the Sumerian Renaissance because its rulers attempted at restoring older pre-Sargonic traditions.

Ur-Nammu, about whom little is known, founded the dynasty. He began his career as a **ŠAGIN** of Ur, that is a military chief of a city-state. He succeeded Utu-Hegal, king of Uruk who had defeated the Guti after his conquest of the Akkadian empire. As soon as established in his kingship, Ur-Nammu defeated Gudea's Lagaš and preferred truces to conflicts, spreading his diplomacy to city as distant as Mari on the Euphrates.

After his self-proclamation as King of Sumer and Akkad, Ur-Nammu extended the urbanisation of several Mesopotamian cities and notably 'modernised' the Ziggurat of Ur. He was also the author of the oldest legal code three centuries before Hammurabi. He was followed by his son Šulgi who reigned for forty-eight years and expanded his land to the Tigris and Iran while the core of the kingdom engaged in political, administrative and economic changes.

Many of Šulgi's reforms are known from 'Year names' which date documents of his reign. This is how we know about temple administration, and administrative structures for the whole of united kingdom of Sumer and Babylon.

The writing system and metrology were standardised; a regular army was created and an early networking system reaching any location of the kingdom, in the best possible time was set up; property management was placed in the hands of the state rather than with temple administration as it used to be. Šulgi's institutions were never equated in the centuries to come. Amar-Sîn and Šu-Sîn, his two sons led the state into a state of decadence which worsened under Ibbi-Sîn's long lasting reign of eighty years. He was the last ruler of the dynasty. However, 60,000 cuneiform administrative and accountancy texts from that period were excavated at the sites of Nippur, Girsu, Umma and Ur. This empire mainly made up of Sumer and Akkad was divided in about twenty provinces, roughly, nothing had changed since pre-Sargonic Sumerian city-states geography. Local governments were plutocratic and hereditary, a relatively secure status under a strong kingship but leading to contests under the weaker kingships of Šu-Sîn et Ibbi-Sîn. Additionally to the **ENSI**, the military of the province was entrusted to a **ŠAGIN** who was independent from the **ENSI** and responded to the authority of the **SUKKAL. MAḪ**, or to the king.

If the **ENSI** came from a plutocratic system, the **ŠAGIN** arose from Elamite, Hurrian or Amorite military oligarchic stock from which the king extracted a new faithful class of high-ranking officers marrying into plutocracy.

Thus provinces were led by two distinct heads in order to avoid the dictatorship of a unique ruler.

The temple was administered by a **ŠABRA** who controled agriculture. There was also an administration recording land given to military and civil serevants, and another administration supervising textiles, metals and various workshops. The private sector was less recorded.

The kings of Ur fought frequent battles in tributary regions where they kept important garrisons. These regions to the east of the empire were reasonably well-controlled. This formed a bumper zone against distant enemies and from which they imported a variety of goods. It will be worth noting that among **GUN.MADA**-taxations collected from these regions, which are documented from about a hundred cuneiform tablets, 35 date from Šulgi's reign, 35 from his successor Amar-Sîn, but only 19 from Šu-Sîn and 2 from Ibbi-Sîn. This shows an increasing weakness of the empire which would only survive for about 12 years after Šulgi's death.

Tradition has it that it was an Elamite incursion, launched from the east of the Iranian plateau, in 2004 BC which brought down the empire. However, it was Išbi-Erra of Isin, an Amorite who settled a new period on the ashes of the empire and where new cities such as Isin, Larsa, Babylon, Ekallâtum, Ešnunna or Mari, flourished.

The events which provoked the fall of the Ur III empire might have been external pressions, especially from the Elamites and the Amorites, but also perhaps the inability to maintain the burden of an enormous bureaucracy indispensible for its administration - it might have been a bit of both.

Regardless, this Ur III period would remain fundamental to Mesopotamian history as it was a link where the inheritance of the previous periods became the model for the following centuries.

Additionally, this period witnessed flourishing literature which considerably influenced the culture of the next centuries. Prayers, hymns, religious texts including the *hieros gamos*, epics, especially celebrating the First Dynasty of Uruk, with the epic of Gilgameš, etc., were written down. The lamentation genre appeared at the fall of the empire and contributed to the celebration of this last great period at the end of which the Sumerians would disappear from the historical stage.

Bibliography:

Frayne, D.R., Ur III Period (2112-2004 B.C.), *RIME 3/2*, Toronto, (1997); **Grégoire, J.P.**, *Archives administratives sumériennes*, Paris, (1970); **Sallaberger, W.**, 'Ur III-Zeit', in **Sallaberger, W.**, and **Westenholz, A.**, Mesopotamien. Akkade-Zeit und Ur III-Zeit, *OBO 160/3*, Fribourg, (1999). **Steinkeller, P.**, The administrative and economic organization of the Ur III State: the core and the periphery, in **Gibson, McG.**, and **Biggs, R.D.**, *The Organization of Power*, Chicago, (1987).

UR III (2300-2200 BC)

BM 132835

Fig. 116. BM 132835.

BM number: 132835
Registration number: 1960,0517.7
Culture/period: UR III
Date: 2100 - 2000 BC
Materials: chlorite
Height:35.3mm
Diameter:13mm

Acquired: Donated by Miss E Jackman in 1960. She presented a large collection of Mesopotamian cylinder seals to the British Museum in 1960 which formerly belonged to Mr. Lionel Cooper.

Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II: Akkadian, Post Akkadian, Ur III Periods, II*, London, British Museum Publications, (1982).

Fig. 117. Modern impression of BM 129479.

Chlorite cylinder seal divided into two registers by three parallel, horizontal lines. Above, two female worshippers, with their left hands raised, approach a third figure facing them with her right hand raised. All three have their hair in a bun, wear berets and robes with double-rolled hems. The appear to be shod with heeled shoes. Below, three geese or swans with their wings spread, swim towards the left on an slightly undulating line which represents water. The seal is not perforated but there is a mark at one end to indicate that the lapicide had planned its drilling but never came to it for some unknown reason.

The scene might represent a form of responsorial chanting, or a teaching session. The presence of swans may indicate that these birds had some significance in the text that the worshippers would have sung. There might also be a significance in equating the number of birds to the number of folk represented. It is also worth noting that the two folk and the two birds to the left are separated by the folk and the bird to the right by a larger interval and that this would have had a significance which eludes us at present.

OLD BABYLONIAN PERIOD

The Old Babylonian Period is a historical and linguistic epoch which is roughly defined as englobing modern-day Iraq, from Baghdad to Basra, using a common language and spanning from about 2000 to 1600 BC.

During the early part of the period the land was ruled by prominent city-states such as Isin, Larsa, Eshnunna. Then, from 1894 BC, Babylon was ruled by a dynasty of Amorite kings gravitating around the city-state of Mari on the Euphrates. Hammurabi, the sixth ruler, defeated southern states and expanded his rule to northern Mesopotamia. At his death, the empire shrank over a period of about 150 years. However, Babylon remained an important power until it was sacked by the Hittite king, Mursili the first, in about 1595 BC.

During the Old Babylonian period, literary activity flourished with religious, poetical and scientific texts written in Sumerian and Akkadian. The stele of Hammurabi, now in the Louvre in Paris, is certainly one of the most representative artwork of that period.

Most agree that the period began, concurrently, with the fall of the Ur III Dynasty, around 2000 BC, with the massive migration of Semitic Amorite tribes into Mesopotamia. These clans established new dynasties and acculturated to local trends. The Amorites contributed to the fall of the Sumerians for some three centuries until around 1600 BC.

During the 18th century BC, the land was ruled by the cities of Isin and Larsa. However Larsa was soon vanquished by Kudur-mabug, an Amorite king who appointed his two sons Warad-Sin and Rim-Sin, to rule over the city. Rim-Sin (1822-1763 BC) expanded the empire and managed to conquer Isin. The period of glory for Larsa lasted another 30 years until Hammurabi's victory in (1763 BC).

At the end of the Old Babylonian Period (1763 - 1595 BC) Hammurabi took over the north. During his reign he handled his enemies, among which Larsa, Eshunna, Mari and Shamshi-Adad I of Assyria (1813 - 1781 BC), both with diplomacy and military force.

The fame of Hammurabi was such that at his death, the first dynasty claimed the whole Babylonian plain up north as far as Mari and Ashur.

The 1930s excavations at Mari revealed political intricacies of the Hammurabian age. A vast archive of cuneiform texts were excavated, most of them letters and business documents, about Hammurabi's activities and his enemies. Some even mentioned that Hammurabi's ambassadors at Mari, and Mari's ambassadors to Babylon both spied for their respective kings. Generally, however, the relationship between Mari and Babylon was a friendly one although as soon as Hammurabi conquered Larsa, he defeated his former ally and subjugated Mari.

Hammurabi was wise enough to foresee that a military rule alone would not suffice and implemented laws enforced by his own administration. These codices considerably influence the whole of the Orient.

The Old Babylonian period, especially during the Hammurabian period came to be labelled the Classical Babylonian era, from which a distinctive Babylonian culture developed as a result of

ethnic conglomeration from the earlier Sumero-Akkadian civilization of the third millennium.

The language, Babylonian, is a dialectal form of Akkadian; religion, law, science and the arts were not really affected by the Babylonian revolution. The three major gods, An, Enlil and Enki still ruled from their pantheon. However, Marduk soon became a predominant deity with the claim that he was a son of Enki.

The law was left mainly unchanged with only a few additions such as the *lex talonis*, an Amorite borrowing. The fundamental principles of law were formulated in the Sumerian language. However, contractual law as well as the common law were now written in Babylonian.

During the Isin-Larsa period, Sumerian literature was part of the curriculum but soon works in Babylonian were written, especially in the north. However, Sumerian was still used for liturgical and scholarly works, very much like Latin had remained the language of the learned in Western cultures and still is, occasionally.

In the Sumerian south, salination of the soil due to centuries of irrigation without drainage caused a consequential reduction in the agricultural yield with the result that the land could no longer feed a growing population. This was responsible for a migration to the north. Concurrently, Babylonian supplanted Sumerian.

After Hammurabi's death, the empire faced constant challenges which ended when the Kassites raided Babylon, ending the flourishing Amorite culture and left the land stagnating for the next centuries.

Little is known about the Kassites. They were illiterate mountain dwellers with a language which is unknown to this day. They would have arrived in Babylonia as a military force at the time of Samsuiluna (1749 - 1712 BC), Hammurabi's successor, when they established their dynasty around 1595 BC.

Another foreign invader were the people of the Sealand, a kingdom by the Arabian Gulf. All that is known about them is a list of their kings. For some time they controlled Nippur with a neo-Sumerian inflection, but were finally conquered by the Kassites.

The first dynasty of Babylon finally succumbed to the might of the Hittites of Anatolia (Asia Minor). Mursilis the first, their king, invaded Babylonia by surprise and sacked Babylon, but for some unknown reason, pulled back from the land allowing the Kassites to seized power.

OLD BABYLONIAN (2000-1600 BC)

BM 86269

Fig. 118. BM86269.

BM number: 86269
Registration number: 1899,0418.11
Culture/period: Old Babylonian
Date: 2000 - 1600 BC
Materials: chlorite
Height: 25mm
Diameter: 14mm

Acquired: Purchased from William Talbot Ready (1857-1914). Previously from the collection of Dr Blau, A. William talbot Ready was employed by the British Museum as repairer and cleaner of antiquities, particularly in the Egyptian and Assyrian Department, until about 1884 after which he appears to have specialised as a dealer as his sales to the Museum begin in 1886.

Bibliography: Wilson, D.M., 'The British Museum: A History', London 2002, p.357, n.128; Marjorie Caygill, 'An enduring legacy', *British Museum Magazine* 51, (2005), p.55; **Collon, D.,** *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods, III*, London, British Museum Publications, (1986).

Fig. 119. Modern impression of BM 86269.

Dark chlorite cylinder seal with two registers separated with a single line. On the top register are two foot slapping dancers (See figure 117 below), a figure, with a dagger holding the tail and mane of a lion griffin fighting another. A scimitar hangs between them. Next are two fighting bull-men grasping a weapon and holding each other by the horn. The lower register has a bow-legged dwarf playing an air-lute (See figure 118); an individual stands brandishing an axe, and perhaps whirling a sling or a mace with one foot securing an adversary to the ground. There is a figure holding a dagger and holding a prisoner with elbows tied behind his back. A bearded human head wearing a cap hangs in the scene. There is a presentation depiction consisting of a worshipper with one hand raised being led by a goddess in a flounced robe standing in front of a seated goddess wearing a flounced robe and raises one hand just under a crescent moon and before whom stands an embryonic(?) creature, while a kilted attendant is behind her. All figures wear caps, one of which is crested, except for the seated goddess who wears a horned head-dress.

Fig. 120. Modern foot slapping (Schuhplattler) in Bavaria, Germany.

Fig. 121. Left, detail from above. Right, moden air guitar.

BM 89184

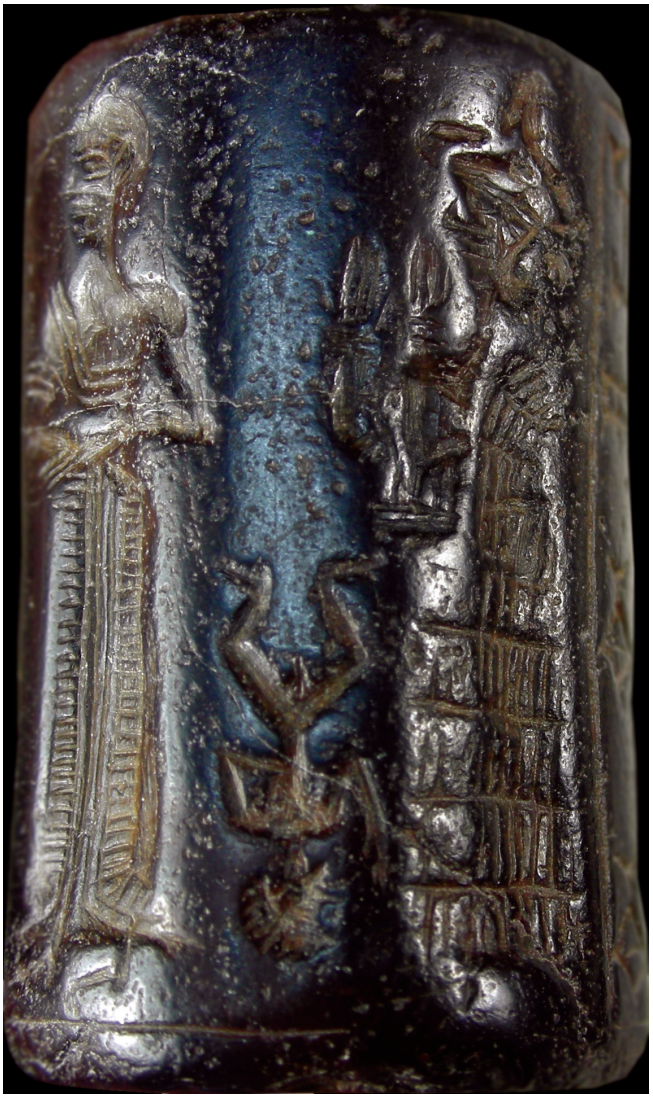


Fig. 122. BM 89184

BM number: 89184
Registration number: 1856,0502.10
Culture/period: Old Babylonian
Date: 1800 BC?
Materials: Goethite
Height: 28mm
Diameter: 18mm

Acquired: from J.K. Lynch in 1856. Lynch sold a large collection of Mesopotamian seals to The British Museum in 1856.
Bibliography: **Collon, D.**, *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods, III,* London, BMP, 1986.

Fig. 123. Modern impression of BM 89184.

This cylinder seal is carved from goethite. It depicts an imploring goddess and a bald, clean-shaven worshipper wearing a fringed robe, with hands clasped. She faces a god-king. A bow-legged dwarf, hanging upside down and playing an air lute faces the imploring goddess; a star-disc and crescent, and a monkey face to the left. There is a border line around bottom of the seal. The inscription reads **ma-a-na-na, kush (ISH), dumu za-ku-um, ir nin-si-an-na**. which translates as: 'Manana, the equerry (*kizhum*), son of Zakum, servant of Ninsianna'.

Fig. 124. Detail of air lute player, in a normal position.

BM 89234

Fig. 125. BM 89234.

BM number: 89234
Registration number: 1835,0509.6
Culture/period: Old Babylonian
Date: 1800 BC?
Materials: hematite
Height: 24.5mm
Diameter: 12.5mm

Acquired: from Frederick Catherwood. According to the register, it was 'part of collection of Babylonian signets and cylinders' bought from Messrs. Bonomi and Catherwood for 50 guineas, (BM central archive, Committee minutes, vol. XIV, p.3984) [& annotated 'Bonomi' in WAA (Western Asiatic Antiquities) copy of Cullimore. Also described, without details of method of acquisition, in British Museum List of Additions, 1835, pp. 467-8 (British Library, shelf no: 732 f13). No further details in reports to Trustees (BM central archive Reports, 1835, p. 3923).

Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods, III*, London, BMP, 1986.

Fig. 126. Modern impression of BM 89234.

A hematite cylinder seal depicting a facing nude hero holding a vase. A king holding a mace stands by an imploring goddess. In the scene are a double-headed mace, a small monkey and a bow-legged dwarf who might be dancing. This seal is chipped and its perforation eccentric.

There is an inscription which reads: **si-li-nin-urta, dumu nin-urta-an-dul-li, ir nin-urta**. This translates as: Silli-Ninurta, son of Ninurta-sululi, servant of Ninurta.

BM 89411

Fig. 127. BM 89411.

BM number: 89411
Registration number: 1856,0502.22
Culture/period: Old Babylonian
Date: 1800 BC?
Materials: Hematite
Height: 15.5mm
Diameter: 0.75mm

Acquired: From Lynch, J.K. who sold a large collection of Mesopotamian seals to The British Museum in 1856.

Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods, III*, London, BMP, 1986; **Collon, D.**, *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods, III*, London, BMP, 1986.

Fig. 128. Modern impression of BM 89411.

Hematite cylinder seal showing a kilted figure wearing a crested cap. He has one hand raised. A lion-demon in depicted in a smiting posture with weapons in each hand. There is a kilted figure with a cap and holding a crook. All walk to the right. There is a bird in the scene. There is a crescent above a bow-legged dwarf who plays an air-lute. There is a line border round the bottom of the seal. This seal was re-cut from a larger one. The perforation is eccentric.

BM 89706

Fig. 129. BM 89706.

BM number: 89706
Registration number: 1983,0101.270
Culture/period: Old Babylonian
Date: 1800 BC?
Materials: Hematite/magnetite
Height: 18.5mm
Diameter: 0.8mm

Acquired: pre 1900. Excavated by Hormuzd Rassam.
Notes: Probably acquired before 1884, and bought from Rassam. Excavated in Babylonia or in early Assyrian excavations, but of indeterminate origin.
Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods*, III, London, BMP, 1986.

Fig. 130. Modern impression of BM 89706.

Seal made from magnetite with some hematite. A god wearing a fringed robe faces to the right. He wears a rimmed bonnet. Both his forearms raised up to the chest. There are two foot-slapping dancers who are inverted. They wear conical hats and may be naked.

This seal has been re-worked at least once and is well-worn making it difficult to establish the chronology of its successive carvings.

BM 89786

Fig. 131. BM 89786.

BM number: 89786
Registration number: 1983,0101.309
Culture/period: Old Babylonian
Date: 1800 BC?
Materials: Hematite
Height: 21mm
Diameter: 11mm

Acquired: pre 1900. Excavated by Hormuzd Rassam.
Notes: Probably acquired before 1884, and bought from Rassam. Excavated in Babylonia or in early Assyrian excavations, but of indeterminate origin.
Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods*, III, London, BMP, 1986;

Fig. 132. Modern impression of BM 89786.

Hematite cylinder seal. The scene includes four principal figures. To the left is a well-worn facing figure of a female with hands clasped, standing on a small estrade or pedestal. Next to her, on her left is a facing folk wearing a belted kilt, right arm along his body and left forearm raised to his chest. He wears a conical base-rolled bonnet. He might be bearded. Between this folk and the female, at the level of their heads, is a bird flying to the ground. A small monkey is turned towards the folk's hand, perhaps because it is given a treat. To the left of the folk is a female personnage looking to the left with right forearm raised at an angle. Her right hand holds two, but perhaps four, maces against her chest. Her hair rolls down to her neck. She wears a rolled wide-rimmed bonnet. Between them is a bow-legged dwarf playing the 'air-lute'. There is a disc placed at the level of their heads. Further to her left is a servant looking to his right. His left hand holds what could be a drinking vessel while his right arm running down his body seems to be holding the arched handle of some vessel. A mace is seen close to his chest. Between him and the previous personnage, at the level of their heads, is a rosace made of a central convex round encircled by eight blobs. Just behind the last figure is a shape pointing upside down, perhaps a toadstool.

BM 89818

Fig. 133. BM 89818.

BM number: 89818
Registration number: 1854,0401.5
Culture/period: Old Babylonian
Found at: Kalah Shergat Ashur, Noerth Iraq.
Date: 1800 BC?
Materials: hematite
Height: 17mm
Diameter: 9mm

Acquired: 1854 from Captain Felix Jones (1813/14 - 1878). He was an employee of the East India Company. He first served as a midshipman on the survey ship 'Palinurus' commanded by Captain Stafford Bettesworth Haines (1802-1860), who is best known for securing Aden on behalf of the EIC. Later employed in the survey of Ceylon and the Gulf of Mannar, under Lieutenant Powell, and in 1840-41 joined Lieutenant C.D. Campbell and then Captain Lynch in surveying the Euphrates route to the Mediterranean. Succeeded Lynch in 1843 and continued this work for several years, also involved with Major Henry Rawlinson in gathering information on the Persian/Ottoman border in 1844. Promoted Commander, 13 September 1847, he conducted

important archaeological surveys of parts of Mesopotamia, including the course of the ancient Nahrwan Canal (1848), the course of the Tigris and what he believed to be the site of Opis (1850), the Assyrian heartland (1852) and the Baghdad area (1853). Named political agent at Baghdad and consul-general in Turkish Arabia (1854), later political agent in the Persian Gulf (1855) when he initiated excavations at the site of Liyan on the Bushehr peninsula, but these were abandoned following the outbreak of war according to a letter sent by W.F. Prideaux. Ill health compelled him to later return to England. His later career was spent carrying out geographical work for the India Office, and in 1875 he completed a beautifully drawn map, in four sheets, of western Asia, including the valleys of the Tigris and Euphrates; it remains in manuscript in the India Office collections. FRGS (1864), he served on the Royal Geographical Society council, and was a valued contributor to the 'Geographical Magazine' and a member of the Geographical Club. Married to Sophie Takoor with children. He died at his home, Fernside, Church Road, Upper Norwood, Surrey, on 3 September 1878. The Geographical Magazine obituary called him 'one of the greatest ornaments of the old Indian navy' ('Geographical Magazine', 1878). The most important of his numerous memoirs are included in 'Selections from the Records of the Bombay Government' (1857). Coins from the collection of Captain Jones were purchased through his agent W.J. Stirling in 1854.

Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods*, III, London, BMP, 1986;

Fig. 134. Modern impression of BM 89818.

Hematite cylinder seal. A kilted and a robed figure face each other and each raises one hand. A bow-legged air lute player stands between them with his right hand raised. A small monkey is held by the figure to the right, in his right arm. A crescent stands in the middle of the scene above the figures. It is probable that this seal had been re-worked in antiquity.

BM 102520

Fig. 135. BM102520

BM number: 102520
Registration number: 1908,0411.28
Culture/period: Old Babylonian
Date: 1800?
Materials: Hematite
Height: 29mm
Diameter: 15mm

Acquired: Purchase from Élias Géjou in 1908.
Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods*, III, London, BMP, 1986.

Fig. 136. Modern impression of BM 102520.

Hematite cylinder seal. The scene represented is complex and gravitates around a central personnage facing to the right of the scene and holding a kid, probably, as an offering. The personnage wears a large-rimmed bonnet, has a long beard, a long robe split from the waist from which his right leg shows. He seems to be wearing epaulettes which would have been etched with a vertical bow-drill. Facing him is a god, perhaps a bearded sun god wearing a multi-horned hat and a belted pleated robe split from the waist from which the god's right leg shows, with his foot resting on what might be symbolising a mountain but which could also simply be a foot rest. The god is holding a dagger in his right hand, probably the weapon with which he is about to sacrifice the kid. A crescent moon hangs above them at the height of their heads. Behind the central personnage stands a worshipper looking to the right of the scene with hands joined at the level of her chin. She wears a multi-fringed robe, has a conical hat her hair curling down her neck. Between her and the personnage is a small monkey? A sun disc floats between their heads. To the left of the latter figure stand a half-sized character wearing a ladder-like decorated robe. She wear a conical-shaped hat with her hair tied in a bun, at the back of her neck. She faces to the left of the scene where stands a bow-legged naked dwarf air-lute player. Above them hang a scorpion and what could be a lion-scimitar. These two last inclusions would have been etched after an inscription was erased from the scene as the seal is clearly flat on one side.

BM 122961

Fig. 137. BM 122961.

BM number: 122961
Registration number: 1931,1010.29.
Excavation number: U.16694
Culture/period: Old Babylonian, from Ur, south Iraq.
Date: 2000 BC?
Materials: Ceramic
Height: 24mm
Diameter: 17.5mm

Acquired: Excavated by Woolley and acquired in 1931. Sir Charles Leonard Woolley was a British archaeologist (7 April 1880 - 20 February 1960). He was appointed as an assistant in the Department of Antiquities in the Ashmolean Museum, Oxford under Arthur Evans (1905); joined a University of Pennsylvania expedition to excavate with David Randall MacIver at Karanog and Buhen in Nubia and later with an Oxford University expedition in the same region (1907-11); succeeded D.G. Hogarth as director

of British Museum excavations at Carchemish (1911-19). This work was interrupted, first by a six week survey on behalf of the Palestine Exploration Fund in the Sinai with his Carchemish colleague T.E. Lawrence (1914), and later by war service when he held the rank of major and worked as an intelligence officer. From 1916-18 Woolley was a prisoner of war in Turkey. Then he worked at Tell el-Amarna, Egypt (1921-22) and then led an expedition to Ur and Tell al-Ubaid for The British Museum and the University Museum, Philadelphia between 1922-34; He was knighted in 1935; began excavating at Tell Atchana, the ancient Alalakh (1937, resumed after until 1949). He was assiduous not only in producing full publications of all his excavations, but was also a good public communicator, giving radio interviews, publishing a number of popular books on archaeology, including: '*Dead Towns and Living Men*', at the Oxford University Press, 1920; and '*Spadework*'.

Bibliography: Obituary by A. Parrot, 'Syria', 37 (1960), pp. 384-86. 'Who's Who, 1957; C.L. Woolley, '*Spadework: adventures in archaeology*', Lutterworth Press, 1953; C.L. Woolley, '*As I seem to remember*', Allen & Unwin, 1962; H.V.F. Winstone, '*Woolley of Ur: the life of Sir Leonard Woolley*', Secker & Warburg, 1990; Nicole Chevalier, '*La recherche archéologique française au moyen-orient 1842-1947*', Paris: Editions Recherche sur les Civilisations, 2002, p. 226.

Fig. 138. Modern impression of BM 122961.

Ceramic cylinder seal. Although the execution is naive it is nevertheless very expressive. Four robed figures have their arms raised in what could be a festive posture. The central character, also the largest, may have a horned hat. The character to his or her right may hold a dagger, but could well be a clapper since the depiction is most certainly a dance scene. A tree, probably a tree of life concludes the depiction.

BM 129606

Fig. 139. BM 129606.

BM number: 129606
Registration number: 1945,1013.150
Culture/period: Old Babylonian
Date: 2000?
Materials: Ceramic
Height: 24mm
Diameter: 10mm

Acquired: from Lincoln by Southesk in 1880, and the acquired by the British Museum in 1945.
Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods*, III, London, BMP, 1986.

Fig. 140. Modern impression of BM 129606.

Ceramic cylinder seal. The scene depicted is highly imaginative and includes three naked dancers, probably. However, the folk to the left appears to be seated which might indicate that he is the spectator of the scene in which case there would only be two dancers. The seated character may be holding a large toadstool upside down. The central figure dances while a goat joins in to his left side. The figure to the right of the scene could be foot-slapping. Two birds stand at the bottom of the seal. The perforation of the seal is eccentric.

BM 134757

Fig. 141. BM 134757.

BM number: 134757
Registration number: 1966,0218.18
Culture/period: Old Babylonian
Date: 1850 BC
Materials: Lapis Lazuli
Height: 24.8mm
Diameter: 14.5mm

Acquired: Purchased from the late Captain Edward G. Spencer-Churchill in 1966.
Bibliography: Collon, D., *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods*, III, London, BMP, 1986.

Fig. 142. Modern impression of BM 134757.

Lapis lazuli cylinder seal. This is a presentation scene. A suppliant goddess stands behind a bald, clean-shaven worshipper who might be the owner of the seal and who faces a seated, deified king in a round hat before whom is a small nude dancer or bow-legged dwarf air-lute player who stands on and estrade under a sun-disc or star-disc and a crescent moon. There is a base line under the scene and three-line inscription. The edges are slightly chipped.

Inscription:
Transliteration
suen-ish-me-a-ni, dumu suen-i-din-nam, ir su-ma-ia-mu-ut-ba-la
Translation
Sin-Ishmeanni, son of Sin-iddinam, servant of Sumu-Yamutbala.

OLD ASSYRIAN PERIOD

The earliest texts written by an Assyrian king appears in the mid twenty first century BC. This is the date at which the Old Assyrian Period starts. It also coincides with the end of the Sumerian domination of Assyria. At that time the land united a number of city-states and smaller kingdoms. Culturally, Old Assyria is marked by Ushpia's edification of a temple in Ashur, around 1050. He might have been a contemporary of Ishbi-Erra of Isin and Naplanum of Larsa. His successors would have been Apiashal, Sulili, Akiya and Kikkiya, the later having built defences and temples at Ashur.

Old Assyrian kings faced constant threats from Hattians and Hurrians to the north, Gutians, Lullubi and Turukku to the east, Elamites to the southeast, Amorites to the west and from the Sumero-Akkadian city-states of Isin, Kish, Ur, Eshnunna and Larsa in southern Mesopotamia.

Ashur sprouted from oligarchy rather than monarchy. The chieftain ruled the assembly but was not addressed to as a šarrum or king the term being reserved for the deity of the city. Instead, the chieftain was called the iššiak Ashur, or servant of the city of Ashur.

Then follows a series of dynasties and period which can roughly be divided into the following: Dynasty of Puzur-Ashur I, 2025 - 1809 BC, Old Assyrian Empire; Amorite Period in Assyria, 1809 - 1750 BC; Assyria under Babylonian domination, 1750 - 1732 BC; Assyrian Adaside dynasty, 1732 - 1451 BC; The decline, 1450 - 1393 BC.

OLD ASSYRIAN (2000-1700 BC)

BM 134306

Fig. 143. BM 134306.

BM number: 134306
Registration number: 1963,1014.2
Culture/period: Old Assyrian
Date: 1920-1740 BC
Materials: Ivory or bone
Height: 24mm
Diameter: 14 mm

Acquired: Sold by Kemal Altinoren to the British Museum in 1963
Bibliography: Rimmer, J., *Ancient musical instruments of Western Asia*, London, British Museum, 1969; **Frankfort, H.**, *Cylinder Seals: a documentary essay on the art and religion of the ancient Near East*, London, Macmillan, 1939.

Fig. 144. Modern impression of BM 134306.

Fig. 145. Detail of above.

A very unusual cylinder seal made from bone or ivory. A folk sits on a four-legged stool. He could be wearing a short kilt which is not clearly seen, and a belted top vertically stripped. He is singing since he is depicted with his mouth open and wears a stripped beret. His right arm is raised with fingers clearly seen. His left arm is elusive. A lyre disproportionate to the folk is depicted in front of him but represented on its side rather than vertically if it were played. It is therefore not certain if the folk was playing it. The lyre shown is atypical of the Old Assyrian period but is more reminiscent of later Greek models. This raises the possibility, on a chronology basis, that later Greek lyres found their origins in south eastern Anatolia. The lyre may be fitted with six or seven strings. The folk and the lyre are set at the top of a seven register organisation. These seven registers display an alternation, starting from the base of the seal, of 1) horned animals, 2) small bird, 3) larger birds, 4) small birds, 5) horned animal, 6) small birds, 7) larger birds. The number of animals, therefore would equate the number of strings of the lyre. It is possible that the names of each of these animals would been the incipit of a melody, a song, each song starting on each of the string of the lyre. This hypothesis is based on the author's recent analysis of a cuneiform tablet hosted at Yale, '*YBC 11381: New evidence for Neo-Babylonian Enneatonism in Music Theory*' where each song named by its incipit, starts on each of the nine strings of a 9-stringed lyre.

MIDDLE ASSYRIAN PERIOD

There is divergence of opinion about the dating of the Middle Assyrian Period. Some scholars argue that it started at the fall of the Old Assyrian kingdom of Shamshi-Adad I, others, at the ascension of Ashur-uballit I to the throne of Assyria (1365 - 1330).

Ashur-uballit enforced treatises with other nations. One of his letters to the Egyptians angered Burnaburiash II of Babylon who in turn wrote to Pharaoh: '*with regard to my Assyrian vassals, it was not I who sent them to you. Why did they go to your country without proper authority? If you are loyal to me they will not negotiate any business. Send them to me empty-handed!*'

However, Assyria prevailed and Burnaburiash even married the daughter of the Assyrian king. He was succeeded by prince Kara-hardash, the son born from his marriage with his Assyrian wife. A revolt broke out following the unpopularity of the Assyrians. Asshur-uballit would not allow his grandson to be cast aside, invaded Babylon and placed Kurigalzu on the Babylonian throne. He might have been Burnaburiash's son or grandson. This new kinglet invaded Assyria. Ashur-uballit confronted the Babylonian army at Sugagu, not far away to the south of Assur. Ashur-uballit I in turn, invaded Babylonia, appropriating Babylonian territory in central Mesopotamia.

MIDDLE ASSYRIAN (1400-1100 BC)

BM 89359

Figure 146. BM 89359.

BM number: 89359
Registration number: 1825,0503.161
Culture/period: Middle Assyrian/Elamite
Date:
Materials: Plasma
Height: 18mm
Diameter: 10mm

Acquired: Purchased from Mary Rich in 1825. Widow of Claudius James Rich (1787-1821), traveler, East India Company Resident in Baghdad, whose collection of Manuscripts, medals and antiquities was sold by her to the British Museum in 1825.
Bibliography: Cullimore, A., *Oriental Cylinders, Impressions of ancient oriental cylinders, or rolling seals of the Babylonians, Assyrians, and Medo-Persians*, London, G.W. Nickisson, 1842; **Matthews, D.M.**, *Principles of Composition in Near Eastern Glyptic of the Later 2nd Millennium BC*, Freiberg (Switzerland) and Gottingen, 1990; **Collon, D.**, *First Impressions: Cylinder Seals in the Ancient Near East*, London, BMP, 1987; **Saggs, H.**, *Babylonians*, London, BMP, 1995; **Lajard, F.**, *Introduction a l'étude du culte public et des mystères de Mithra en Orient et en Occident*, Paris, 1847.

Fig. 147. Modern impression of BM 89359.

This seal is made from green jasper. A tall male figure faces to the right, raises high a libation cup with his felt hand while holding the left hand of a small male figure with a lenticular pot in his right hand. The tall man wears a conical bonnet, his hair rolling down to his shoulders. He wears a double-belted kilt decorated with ladder-like lines. Two tassels stitched from the hem of his kilt hang between his legs.

The small figure, perhaps a child, also wears a conical bonnet. However, no hair is seen. He wears a plain kilt with two tassels hanging between his legs. A hexagonal star floats above him.

To the right of the scene stands a woman also wearing a conical beret with hair flowing to her shoulders. She wears a long double-belted robe with ladder-like double lines similar to those seen on the men's kilts. The robe ends with vertical fringes.

The woman holds a slender vertical bi-structural angular harp which appears to be fitted, atypically, with four strings. Four tuning tassels hang from the yoke of the harp. Both hands are clearly depicted on the strings. This might indicate that either fingers of both hands were plucking the strings or that the fingers of one hand plucked the strings while the palm of the other hand dampened strings that were not intended to ring any further.

To the extreme right of the scene is a stylised tree with a palmette of seven branches. It is possible that the seven branches of the palmette indicated that the instrument might have been tuned to a heptatonic scale. However, the hypothesis is uncertain as the harp is tetrachordal, and for other reasons.

BM 130672

Fig. 148. BM 130672.

Museum number: 130672
Regitration number: 1947,1018.4
Culture/period: Northern Syrian
Date: Late Assyrian?
Materials: Hematite
Height: 18mm
Diameter: 8mm

Acquired: 1947. Purchased through Spinks and Sons from a sale at Sotheby's

Figure 149. Modern impression of BM 130672.

Seal made from grey-black hematite.

Eight men walk towards the right with overlapping legs forming a lattice. They wear short kilts with double bands set diagonally from their right shoulder across the chest, to the waist (with one exception where only one band is seen, perhaps the lapicide's inattention) double belts, and four horizontal stripes across the lower part of their kilts (here represented as convex bands because of the nature of the tool used, probably an abrasive disc).

Three distint hats are represented. The first from the left has a type of helmet with a protuberance at the back of the head, a horn at the front, and a neck protector. This is reminiscent of the fourteenth century BC guardian of the king's Gate at the Hittite capital of Boğazköy (See Akurgal 1961, Plates 64-5). The second has a laterally stripped bonnet, or might simply have his hair in a short and spiky style which might be a Syrian trend. The fourth has an upturned and brimmed bonnet.

Double necklaces are seen, while others have their hands claspped and others resting them on the shoulder of the figure in front of them. The scene is under and over-lined by horizontal bands of double-stranded twists laying between thin horizontal lines tighter at the top and looser at the bottom.

This dancing tradition perduring to this day as seen below.

Figure 150. Young Kurds celebrating victory over ISIS

Notes on abrasives in the Ancient Near East

Corundum

In *OTC*. 36, Reginal Campbell Thompson [...compared ^{tak}*algamišu* to Arabic الخهست 'amethyst'. Additional matter now allows us to enlarge on this. First, *CT*. xiv, 15, 7, and 17, 7, and Matouš, Lex. Taf, 88, 2. 52, 53, give the equivalences ^{tak}KUG.BAL.E = ^{tak}UD + ŠAL + KAB = ^{tak}AŠ.MUR = *takalgamiš*. ^{tak}KUG. BAL.E means 'bright + spindle (drill)', indicating the lapidary's tool. Amethyst, as a form of corundum, suggests at once emery (also corundum), employed for cutting gems, and this is paralleled by *takṣipru*, for which he suggested 'sapphire' (Chem. 103), lit. 'the scratching stone' (Heb. צכרן 'finger nail'), another form of corundum, described as *takkunu[ku]* (*CT*. xiv, 15, 23), the stone for cutting seals. Cf. *takkunu[ku]* (*CT*. xiv, 15,23), the stone for cutting seals. Cf. KAR. 213, 2, 11 (dup. *AM*. 46, 1, 24), *qaqqad* $^{(išu)}$*pilakki* GIŠ. MIŠ *qaqqa* $^{(išu)}$*pilakki* UD + ŠAL + KAB (*algamiš*) ŠE GIŠ.MIŠ ŠE (^{tak}ṢAB) X *abnê*^{pl} *Enuma* NA *ênâti* ^{pl}*-šu iṣṣanundupl(du)* 'A head of a spindle of *Celtis Australis*, a head of a drill of corundum, a grain of *Celtis Australis*, a grain of corundum, arsenic, black iron oxide, PA-stone of seven colours, male and female pumice, (lime), ten (!) minerals for hen a man's eyes roll (?).'

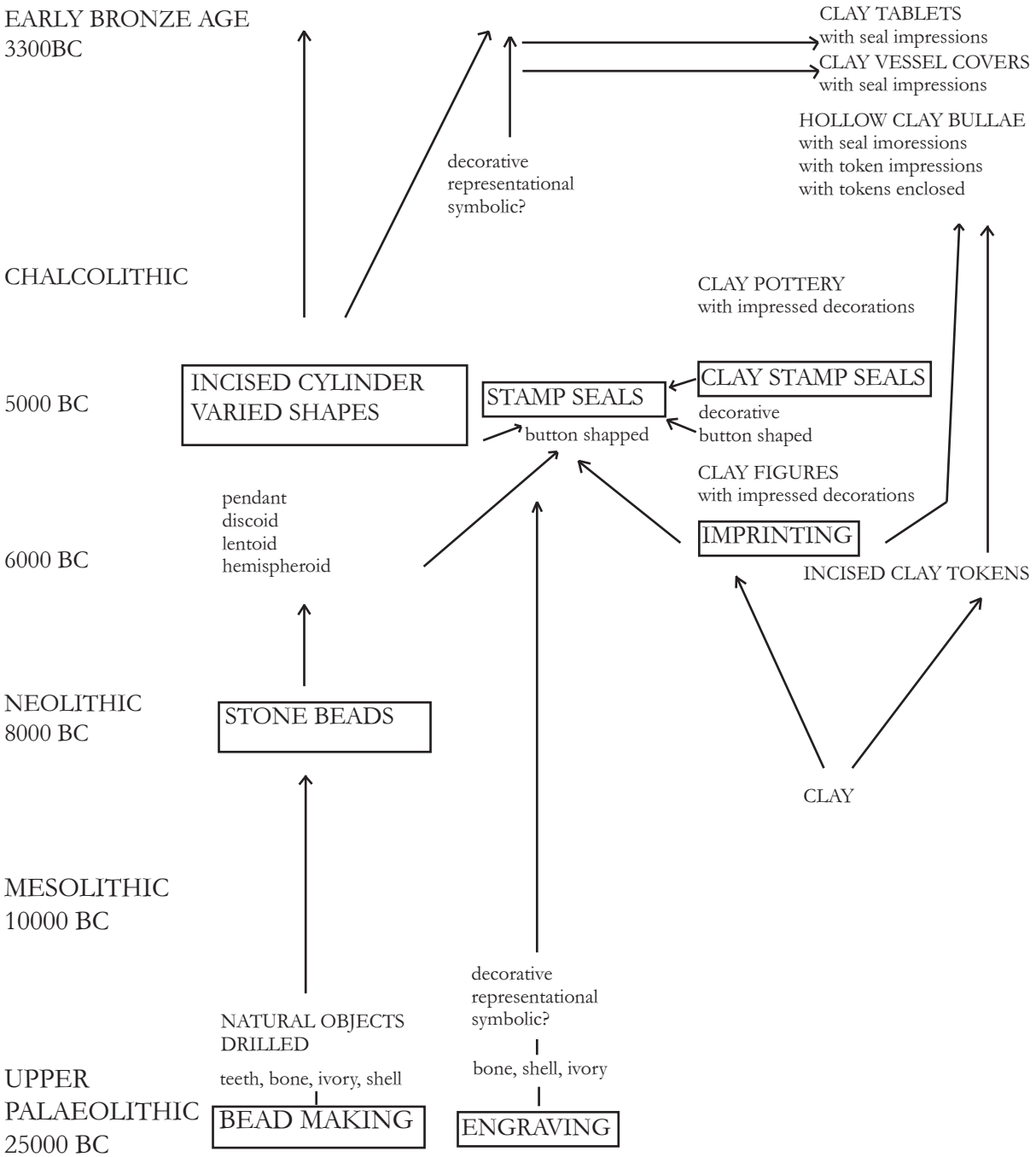
There is, I think, no difficulty in accepting a wood (and not a stone) as the head or whorl of the first of the two spindles. The second is obviously that of the lapidary: the first is that, doubtless, for spinning wool. The bazaars in Mosul sell these latter spindles with wooden heads, and although I do not know what kind of wood it is, it is worth noting that the *Flore Française* (Gillet et Marne, 1898, 438) says that *Celtis Australis*, L., is used by basket makers, and its branches are made into forks. In this ritual the magician introduces by sympathetic magic objects which have a definite rotatory motion to stop the eyes rolling, and the grain of the tree, I presume, acts as representative of the spindle for wood. The yellow arsenic and black iron may perhaps represent the colours of the eye, and the pumice the idea of smoothing(?). Scheil's text, *RA*. 1918, 115, 21, also shows the *qaqqad alga[miš]*, head of corundum, and a lapidary's list in *KAH*. 185, iv, mentions (12) 'two *takalgamiš*, (13) one SAG.BAL (spindle-head) ditto'. Emery powder may possibly be quoted in I ^{tak}KIL.ŠE *al-ga-miš* as far as the epoch of Ur (De Genouillac, *Textes Econ.,* No. 6055, r. iii, 10).

Boson was correct in his reading takAŠ.MUR, σμυρις, 'emery', e.g. Jsmr 'smeriglio', a discovery on which he is to be congratulared (Rev. vii, 411); but until Matouš' text No. 88 was published I had assumed that it was merely a form ^{tak}AŠ.ḪAR, confused with ^{tak}AS. ḪAR 'arsenic', both being used for eyes, emery, of course. Matouš' text N. 88, 2, 49 - 52, however, gives ^{tak}AŠ.MUR as equivalent to ^{tak}BALAG. GA ('pumice'), ^{tak}KU.IM ('powder of clay'), uncertain, but it = ^{tak}BALAG.DU, l. 48), and ^{tak}KU.A.BAR 'powder of antimony' (stibium)' as well as ^{tak}KUG.BAL.E 'corundum'. ^{tak}AŠ.MUR, thus representing at least three well-known powdered stones, allows us to recognize that even the Assyrians, usually so careful, were compelled to admit in their grammatical lists, at all events, a serious variability in the meaning of a word used in the medical texts which, one would have said, demand a careful accuracy.

But in any case, we can now say that ^{tak}AŠ.MUR (=stibium) and ^{tak}AŠ.ḪAR (=arsenic) (both drugs for eyes) are distinct, and *takalgamišu* is amethyst or corundum, and is the same as the Arab.جمست (and not אלנביש 'hail', as has been suggested). It is conceivable that ΑΔΑΜΑΣ (misread?) might have its origins in this word, as the hardest stone.

HYPOTHETICAL DEVELOPMENT OF CYLINDER SEALS

after Gorelick and Gwinnett



a) Hypothetical Development of Lapidary Technology

after Gorelick and Gwinnett

BEADS AND STAMP SEALS

PERIOD	PROCEDURE		
	SHAPPING	DRILLING	ENGRAVING
LOWER PALAEOLOTHIC	PERCUSSION FLAKING	NONE	NONE
MIDDLE PALAEOLITHIC	RETOUCHED FLAKES	NONE	NONE
UPPER PALAEOLITHIC	GRINDING SAWING LOOSE ABRASIVE	FIRST BEADS NATURAL OBJECTS (teeth, bone) NON ROTARY UNHAFTED PERFORATORS LOOSE ABRASIVE	UNHAFTED BURIN
MESOLITHIC	FLAT ABRASIVE STONE	NON ROTARY HAFTED HAND DRILL HAFTED (rotary) MICRODRILL (palm drill) STONE BEADS STAMP SEALS	HAFTED MICROBURIN
NEOLITHIC	GROOVED ABRADING STONE	ROTARY BOW DRILL TUBULAR DRILL (bamboo, reed, bone) WOODEN DRILL BIT PECKING TO START DRILLING BICONICAL DRILLING	HAFTED MICRFOBURIN IN SPECOALISED SHAPES

b) Hypothetical Development of Lapidary Technology

after Gorelick and Gwinnett

CYLINDER SEALS
SAME TECHNOLOGY AS FOR BEADS AND STAMP SEALS
PLUS
HORIZONTAL BOW LATHE
METAL DRILLS
METAL GRAVERS

PROCEDURE

PERIOD	SHAPPING	DRILLING	ENGRAVING
EARLY BRONZE	SHAPED STONES CHARGED LAP WHEELS WOOD METAL BONDED ABRASIVE WHEELS NEW ABRASIVES	USUALLY BICONICAL METAL DRILL BITS OF VARIOUS SHAPES BALL SPADE TUBULAR	<u>BY HAND</u> METAL GRAVERS WITH ABRASIVES <u>ROTARY</u> SMALL WHEELS AND DISCS STONE METAL DRILL BITS BALL TUBULAR TRIAL PIECES CLAY MODELS